



**TPC  
JO's & PO's**

**24**

- 24 SECTORS



PRINT NUMBERS

UNIVERSITY OF CALIFORNIA  
LAWRENCE BERKELEY LAB

SERIAL NUMBER

REQUEST FOR PROCUREMENT

REQUESTER R. WELLS DATE REQUESTED 6/19/97  
 DELIVER TO Jon WIRTH DATE NEEDED 6/26/97  
 BLDG 77A ROOM 105 PHONE NUMBER 7925  
 ACCOUNT NO. 8052-24 AUTHORIZED SIGNATURE Russell Wells

QUANTITY	DESCRIPTION	APPROX PRICE
250 ea	'O' RING, BUNA, PARKER 2-010	\$ 10-
250 ea	" " " " PARKER 2-014	\$ 12.50

VENDOR <u>BAY SEAL</u>	SHIP CODE _____
ADDRESS _____	TOTAL COST _____
CITY _____ STATE _____	P.O. NO. _____
PHONE NUMBER <u>732-7000</u>	TERMS _____
CONTACT <u>CANDICE</u>	PICK UP DATE _____
REMARKS	TIME AFTER _____
<u>IN STOCK</u>	CLOSED DURING LUNCH YES <input type="checkbox"/> NO <input type="checkbox"/>
REQUISITION NUMBER _____	VEHICLE _____

FAID 6/19/97





JOHN MEHREN

PRINT NUMBERS

UNIVERSITY OF CALIFORNIA  
LAWRENCE BERKELEY LAB

SERIAL NUMBER

REQUEST FOR PROCUREMENT

REQUESTER R. WELLS DATE REQUESTED 4/30/97  
 DELIVER TO GARY KOEHLER DATE NEEDED 5/12/97\*  
 BLDG 70 ROOM 311 PHONE NUMBER 7925  
 ACCOUNT NO. 8052-24 AUTHORIZED SIGNATURE Russell Wells

QUANTITY	DESCRIPTION	APPROX PRICE
30 EACH	VITON O-RING (75 DUROMETER) 1/4" NOMINAL (0.275" ACTUAL) WIDTH 120.0" CUT LENGTH	\$ 24 <sup>81</sup> EA
30 EACH	SAME AS ABOVE EXCEPT 88.6" CUT LENGTH	21 <sup>02</sup> EA

VENDOR <u>BAY SEAL</u>	SHIP CODE _____
ADDRESS _____	TOTAL COST _____
CITY _____ STATE _____	P.O. NO. _____
PHONE NUMBER <u>732-7000</u>	TERMS _____
CONTACT <u>CANDICE</u>	PICK UP DATE _____
REMARKS <u>PARTIAL SHIP OF FIRST 12, 120" O-RING BY 5/12 REMAINDER TO FOLLOW BY 5/19</u>	TIME AFTER _____
REQUISITION NUMBER _____	CLOSED DURING LUNCH YES <input type="checkbox"/> NO <input type="checkbox"/>
	VEHICLE _____

FAX D 4/30/97 4:14p

**UNIVERSITY OF CALIFORNIA  
LAWRENCE BERKELEY LABORATORY**  
FOR CONTRACT NO. DE-AC03-76SF00098  
WITH THE DEPARTMENT OF ENERGY

**Vendor: Electrochem Inc**  
25020 Viking Street  
HAYWARD, CA 94545  
US

SHIP TO:  
WILL

1,

MAIL INVOICE IN DUPLICATE TO  
UNIVERSITY OF CALIFORNIA:

UC Lawrence Berkeley Lab  
Accounts Payable Dept  
PO Box 528  
Berkeley, CA 94701

**Purchase Order**

Purchase Order# 6448956 Page 1

This purchase order number MUST appear on all invoices, packing lists, cartons and correspondence related to this order.

Date of Order 28-FEB-97 Buyer J MOREAU 510-486-5523

Revision Date Buyer

Customer Account	Vendor No. 107953	Payment Terms 1% 10 Days	Transportation Terms Acct. of Univ	F.O.B. Ship Pt./Origin	Ship Via Pick-Up
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Vendor Contact: Requester / Deliver to WELLS, RUSSELL P  
FOR RESALE-State Sales Tax should not be charged, as the University holds State Sales Tax Permit SR CH 21-885970 for deliveries to Lawrence Berkeley Laboratory.

LINE	PART NUMBER/DESCRIPTION	DELIVERY DATE	QUANTITY	UNIT	UNIT PRICE	EXTENSION TAX
1	Confirming order to Sheryl Guglielmo. CONFIRMED TO: SHERYL ON 28-FEB-97 -- DO NOT DUPLICATE! Plate aluminum bracket, 0.0003" nickel, follow with 0.000001"/0.000005" gold.	07-MAR-97	201.00	EA	1.75	351.75 N

**TOTAL: 351.75**

The Terms and Conditions Attached  
Constitute A Part Of This Order

-Requester's copy-

Authorized by

UNIVERSITY OF CALIFORNIA



ATTN: J. MEHRAN

ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 10-11-96 Account No. 8092-2A Serial No. 335657  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: AL PAWLINS 442 Ext. 442 Refer Questions To: SAME Ext. \_\_\_\_\_  
 Job Requested By: (Client) Russ Wells Ext. 7925  
 Design Check By: (Engineer Responsible) JW Ext. \_\_\_\_\_  
 Production Check By: JR Mehran Date 10/14/96 Authorized By: [Signature] Date 10/14/96  
 Job Description: RHC/STAR-TPC Residual Risks Accepted \_\_\_\_\_  
 By: \_\_\_\_\_

WORK DISTRIBUTION					
CRAFT	EST. HRS.	PRINTS J.O. / DWGS.	CRAFT	EST. HRS.	PRINTS J.O. / DWGS.
MECH. ENG.			MECH. SHOP OFF.		
MECH. TECH. OFF.			ASSY SHOP		
SHOP 25			MACH. SHOP		
SHOP 71			PAINT SHOP		
SHOP			SHEET METAL		
SHOP			WELDING SHOP		
ELECT. ENG.			C&M OFFICE		
COORDINATING			CARPENTERS		
DRAFTING			ELECTRICIANS		
ELECT. FAB.			LABORERS		
ELECT. INSTALL			MAINT. TECHS		
ELECT. MAINT.			PAINTERS		
ELECT. Q.A.			PLUMBERS		
OPER. CHECK			TOTAL HRS	AT	HR.
TECH. SUPP.			LABOR	\$	
ELEC-MECH. 80			MATERIAL	\$	
SAFETY SHOPS			TOTAL	\$	
SAFETY/ENVIRONMENTAL			FABRICATION:		
ANALYSIS			<input type="checkbox"/> LBL SHOPS		
BY: _____		DATE: _____	<input type="checkbox"/> OUTSIDE SHOPS		
PRELIM. _____			Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000		
FINAL _____					

SECTOR COOLING MANIFOLD  
 FEE BRACKET II

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	<u>F. BIESER</u>				<u>11-15-96</u>
ASSEMBLY					

REFERENCE DISTRIBUTION		PRINTS		
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.
<u>FRED BIESER</u>	<u>50</u>	<u>245</u>	<u>1</u>	
<u>AL PAWLINS</u>	<u>70A</u>	<u>3307</u>	<u>1</u>	
<u>RUSS WELLS</u>	<u>70A</u>	<u>3307</u>	<u>1</u>	

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

P.O. 643 9543

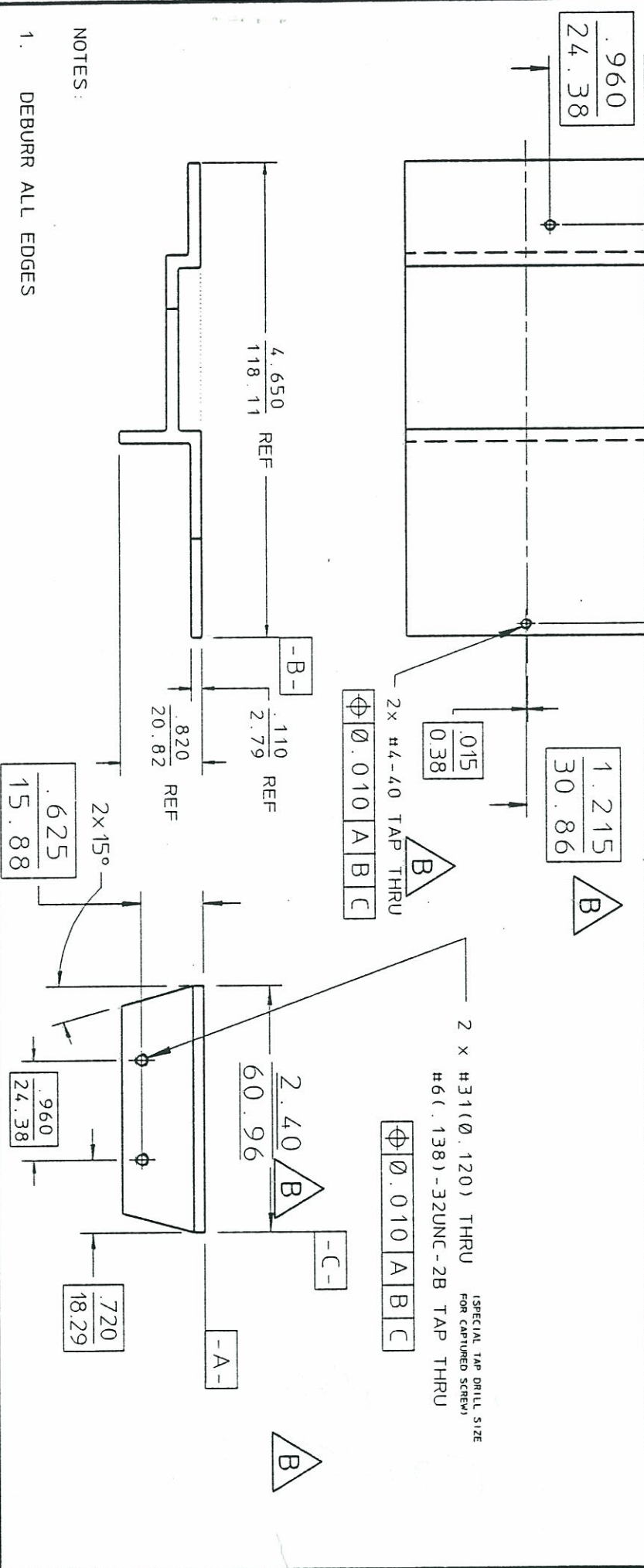
JOB ORDER

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME	DESCRIPTION	INSTRUCTIONS
<u>1</u>		<u>24A6552</u>	<u>200</u>	<u>LBNL</u>	<u>TO Supply</u>	<u>EXTRUSION</u>

PRINT 10/15/96  
 MECH. SHOP OFF.  
 LB. BIESER  
 Oct 15 1 31 PM '96



ITEM	REQ	PART NUMBER	DESCRIPTION
24A6552A		24A6542	FEE BRACKET EXTRUSION 11



- NOTES:
1. DEBURR ALL EDGES
  2. WEIGHT: 0.19 LBS

REV	DWN	CHK	DATE	CHANGES
B	AR		960307	2X #4-40 WAS 3X
B	AR		960307	DIMENSION WAS CHANGED
B	AR		960307	DIMENSION WAS CHANGED
B	AR		960307	DIMENSION WAS 2.900
A	JB		950915	ADDED 4-40 TAPPED HOLES

UNLESS OTHERWISE SPECIFIED		INCHES	
ALL DIMENSIONS ARE		TENTHENTHS	
X/X - +0.02/0.05	ANGLES ±5°		
XX/X - +0.02/0.05			
0.0001XX - +0.005/0.01			
SAVED FLAME CUT, SHEARED OR STOCK FINISH	FINISH	125/32	✓
ALL SCREW THREADS ARE ISO METRIC CLASS 6			
BREAK EDGES 0.01/0.05 MAX ON MACHINE WORK.			
REFERENCE - ANSI Y14.5 & B4.1			

SHOP ORDERS		DEGREASE	
ACT. NO.	DATE	SER. NO.	NO.
ISSD	RECD		
DELIVER			
TO: OPERATE	DATE	NO.	NO.
BY: JBOEIM	DATE		
CHECK			

STAR DRAWING NUMBER	REV	RHIC DRAWING NUMBER	REV
TPC424-B-1	A	XXXXXXXXXXXX	-

LAWRENCE BERKELEY LABORATORY		RHIC-STAR-TPC	
UNIVERSITY OF CALIFORNIA - BERKELEY		SECTOR COOLING MANIFOLD	
		FEE BRACKET II	
PATENT CLEAR	DRAWING TYPE	SHOWN ON	SCALE
MICROFILMED	DETAIL	00X0000	FULL
DESIGN ACCOUNT	CATEGORY CODE		
8092-24	SR-02-04		
		LBL DRAWING NUMBER	DD NOT SCALE
		24A6552	PRINTS
			REV
			B



ATTN: J. MEHRAN

JOB ORDER  PROCUREMENT

MAKE/BUY NO. \_\_\_\_\_

PAGE \_\_\_\_\_ OF \_\_\_\_\_

ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 10-11-96 Account No. 8052-24 Serial No. 335657  
PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: AL PAWLINS 412 Ext. SAME Refer Questions To: Ext. \_\_\_\_\_

Job Requested By: (Client) Ext. 7925

Design Check By: (Engineer Responsible) Ext. Th

Production Check By: Date 10/14/96 Authorized By: Date 10/14/96  
JR Mehran Residual Risks Accepted

Job Description: RHC/STAR-TPC By: \_\_\_\_\_

SECTOR COOLING MANIFOLD

FEE BRACKET II

DELIVER TO: NAME Bldg. Rm. Ext. DUE DATE

PARTS F. BIESER 11-15-96

ASSEMBLY \_\_\_\_\_

REFERENCE DISTRIBUTION PRINTS

SEND COPIES TO: Bldg. Rm. J.O. DWGS.

FRED BIESER 50 245 1

AL PAWLINS 70A 3307 1

RUSS WELLS 70A 3307 1

\_\_\_\_\_

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

P.O. 643 9543

WORK DISTRIBUTION			
CRAFT	EST. HRS.	PRINTS J.O.	PRINTS DWGS.
MECH. ENG.			
MECH. TECH. OFF.			
SHOP 25			
SHOP 71			
SHOP			
SHOP			
ELECT. ENG.			
COORDINATING			
DRAFTING			
ELECT. FAB.			
ELECT. INSTALL			
ELECT. MAINT.			
ELECT. Q.A.			
OPER. CHECK			
TECH. SUPP.			
ELEC-MECH. 80			
SAFETY SHOPS			
SAFETY/ENVIRONMENTAL			
ANALYSIS			
BY: _____ DATE _____			
PRELIM. _____			
FINAL _____			

CRAFT	EST. HRS.	PRINTS J.O.	PRINTS DWGS.
MECH. SHOP OFF.			
ASSY SHOP			
MACH. SHOP			
PAINT SHOP			
SHEET METAL			
WELDING SHOP			
C&M OFFICE			
CARPENTERS			
ELECTRICIANS			
LABORERS			
MAINT. TECHS			
PAINTERS			
PLUMBERS			
TOTAL HRS AT HR.			
LABOR \$			
MATERIAL \$			
TOTAL \$			
FABRICATION:			
<input type="checkbox"/> LBL SHOPS			
<input type="checkbox"/> OUTSIDE SHOPS			
Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000			

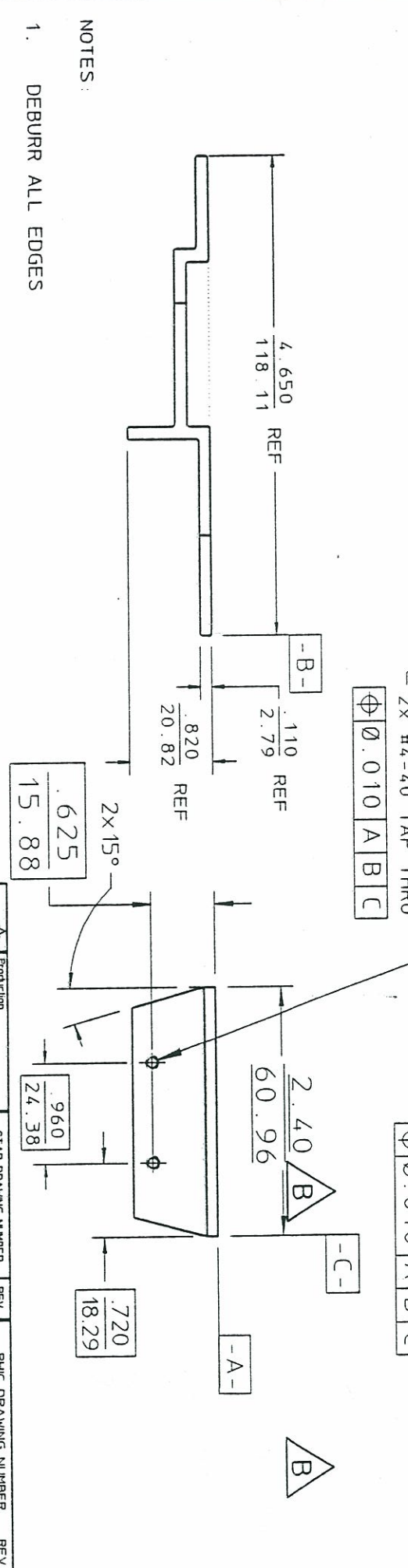
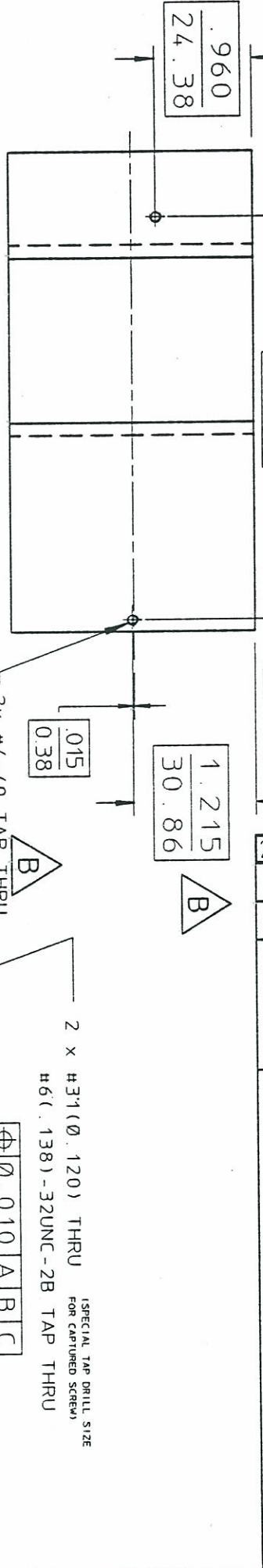
JOB ORDER

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME - DESCRIPTION - INSTRUCTIONS
1		24A6552	200	LBNL To Supply EXTRUSION

PRINT DIVISION  
MECH. ENGR. DEP.  
OCT 15 1 31 PM '96



ITEM REO	24A6552A	PART NUMBER	24A6542	DESCRIPTION	FEE BRACKET EXTRUSION II
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- NOTES:
1. DEBURR ALL EDGES
  2. WEIGHT: 0.19 lbs

UNLESS OTHERWISE SPECIFIED		INCHES		TOLERANCES	
ALL DIMENSIONS ARE TENTH/THIRDS		X/X - ±0.06/15	ANGLES 1.5°	XX/X - ±0.02/0.05	FINISH
		0.00XX/XX - ±0.005/0.01	125/32		SAVED FLAUGHT SNEADED OR STOCK FINISH
					ALL SCREW THREADS ARE ISO METRIC CLASS 6
					BREAK EDGES 0.0205 MAX ON MACHINE WORK.
					REFERENCE - ANS Y14.5 & B4.1
SHOP ORDERS		ACT. NO.	DATE	SER. NO.	NO. HEAD
MFG. # 01000		DATE	DATE	DATE	DATE
Production Approval		DATE	DATE	DATE	DATE
Engineer J BERKOVITZ		DATE	DATE	DATE	DATE
STAR DRAWING NUMBER		REV	RHC DRAWING NUMBER	REV	RHC DRAWING NUMBER
TPC424-B-1		A	XXXXXXX	XXXXXXX	XXXXXXX
LAWRENCE BERKELEY LABORATORY		UNIVERSITY OF CALIFORNIA - BERKELEY			
RHIC-STAR-TPC		SECTOR COOLING MANIFOLD			
FEE BRACKET II		SCALE: FULL			
DRAWING NUMBER		SCALE		REV	
24A6552		FULL		B	



**UNIVERSITY OF CALIFORNIA  
LAWRENCE BERKELEY LABORATORY**  
FOR CONTRACT NO. DE-AC03-76SF00098  
WITH THE DEPARTMENT OF ENERGY

Vendor: Manor Research Inc  
2185 American Ave  
Hayward, CA 94545

SHIP TO:

UC Lawrence Berkeley Lab  
For the US Dept of Energy  
2700 - 7th Street  
Berkeley, CA 94710

MAIL INVOICE IN DUPLICATE TO  
UNIVERSITY OF CALIFORNIA:

UC Lawrence Berkeley Lab  
Account's Payable Dept  
PO Box 528  
Berkeley, CA 94701

**Purchase Order**

<b>Purchase Order#</b> 6439543	Page 1
This purchase order number MUST appear on all invoices, packing lists, cartons and correspondence related to this order.	
<b>Date of Order</b> 16-OCT-96	<b>Buyer</b> J MEHREN 510-486-5524
<b>Revision Date</b>	<b>Buyer</b>

<b>Customer Account</b>	<b>Vendor No.</b> 101500	<b>Payment Terms</b> Net 30 Days	<b>Transportation Terms</b> Acct. of Univ	<b>F.O.B.</b> Shipping Point	<b>Ship Via</b> Pick-Up
-------------------------	-----------------------------	-------------------------------------	--	---------------------------------	----------------------------

**Vendor Contact**  
Requester / Deliver to  
RAWLINS, ALBERT W

FOR RESALE- State Sales Tax should not be charged, as the University holds State Sales Tax Permit SR CH 21-835970 for deliveries to Lawrence Berkeley Laboratory.

LINE	PART NUMBER/DESCRIPTION	DELIVERY DATE	QUANTITY	UNIT	UNIT PRICE	EXTENSION	TAX
1	Free Bracket II, p/n 24A6552. IBNL to provide extrusion. o SHIP TO: Will Call, US	23-OCT-96	200.00	EA	12.5	2,500.00	N
		23-OCT-96	200.00	EA			N

**TOTAL:** 2,500.00

The Terms and Conditions Attached  
Constitute A Part Of This Order

-Requester's copy-

Authorized by

*Jean C. Mehren*  
UNIVERSITY OF CALIFORNIA

JOB ORDER  PROCUREMENT

MAKE/BUY NO. \_\_\_\_\_

ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 12/3/96  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.  Account No. 8052-24 Serial No. 335800

Ordered By: Ext. R. WELLS 7925 Refer Questions To: Ext.   
 Job Requested By: (Client) Ext. H. WIEMAN 0953   
 Design Check By: (Engineer Responsible) Ext. Russell Wells 7925

WORK DISTRIBUTION

CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	DWGS.
MECH. ENG.				MECH. SHOP OFF.			
MECH. TECH. OFF.				ASS'Y SHOP			
SHOP 25				MACH. SHOP			
SHOP 71				PAINT SHOP			
SHOP				SHEET METAL			
SHOP				WELDING SHOP			
ELECT. ENG.				C&M OFFICE			
COORDINATING				CARPENTERS			
DRAFTING				ELECTRICIANS			
ELECT. FAB.				LABORERS			
ELECT. INSTAL				MAINT. TECHS			
ELECT. MAINT.				PAINTERS			
ELECT. Q.A.				PLUMBERS			
OPER. CHECK							
TECH. SUPP.							
ELEC-MECH. 80							

Production Check By: Date Y.R. Mehren 12-5-96 Authorized By: Date Russell Wells 12/3/96  
 Job Description: Residual Risks Accepted  
RHIC-STAR-TPC By:

SECTORS, INNER SYSTEMS TEST PARTS

DELIVER TO: NAME R. WELLS Bldg. 70 Rm. 314 Ext. 7925 DUE DATE 12/16/96

PARTS	ASSEMBLY

REFERENCE DISTRIBUTION PRINTS

SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.
<u>WIEMAN</u>	<u>70A</u>	<u>3307</u>	<u>✓</u>	<u>✓</u>
<u>GREINER</u>	<u>"</u>	<u>"</u>	<u>✓</u>	<u>✓</u>

	TOTAL HRS	AT	HR.
LABOR	\$		<u>360-</u>
MATERIAL	\$		<u>40-</u>
TOTAL	\$		<u>400-</u>

SAFETY/ENVIRONMENTAL ANALYSIS BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PRELIM. \_\_\_\_\_  
 FINAL \_\_\_\_\_

FABRICATION:  LAB SHOPS  MECH. SHOPS  OUTSIDE SHOPS  
 Attach completed MAKE/BUY form when Mech. Shop labor exceeds \$1000

JOB ORDER

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

**P.O. 6442960**

DEC 15 52 PM '96  
 PRIN DIVISION  
 MECH ENR DEPT  
 W. KEILEY

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME - DESCRIPTION - INSTRUCTIONS
		<u>24A3494A</u>	<u>1</u>	<u>RF SHIELD</u>
				<u>Follow-on order to PO 6439541</u>
				<u>YORK PRECISION MANUFACTURING Co</u>
				<u>1035 GRAYSON ST</u>
				<u>BELKLEBY 841-7000</u>
				<u>CONTACT: DAVID</u>



**UNIVERSITY OF CALIFORNIA  
LAWRENCE BERKELEY LABORATORY**  
FOR CONTRACT NO. DE-AC03-76SF00098  
WITH THE DEPARTMENT OF ENERGY

**Vendor: York Precision Mfg**  
1035 Grayson Street  
Berkeley, CA 94710  
US

SHIP TO: Will

MAIL INVOICE IN DUPLICATE TO  
UNIVERSITY OF CALIFORNIA:

UC Lawrence Berkeley Lab  
Accounts Payable Dept  
PO Box 528  
Berkeley, CA 94701

**Purchase Order**  
6442960

Page 1

This purchase order number MUST appear on all invoices, packing lists, cartons and correspondence related to this order.

Date of Order 11-DEC-96  
Buyer J MEHREN  
510-486-5524

Revision Date Buyer

Customer Account	Vendor No.	Payment Terms	Transportation Terms	F.O.B.	Shipping Point	Ship Via	
David Baruch	107110	Net 30 Days	Acct. of Univ			Pick-Up	
PART NUMBER/DESCRIPTION			Requester / Deliver to	FOR RESALE-State Sales Tax should not be charged, as the University holds State Sales Tax Permit SR CH 21-835970 for deliveries to Lawrence Berkeley Laboratory.			
1	DAVID ON 11-DEC-96 -- DO NOT DUPLICATE!		WEEK OF 16-DEC-96 (20-DEC)	QUANTITY	UNIT PRICE	EXTENSION	TAX
RF Shield, Systems Test Parts, per LBNL Dwg. 24A3494A.				1.00	EA 446.75	446.75	N

**TOTAL: 446.75**

The Terms and Conditions Attached  
Constitute A Part Of This Order

-Requester's copy-

Authorized by

*John R. Mehren*  
UNIVERSITY OF CALIFORNIA



DALE ELECTRONICS, INC.  
 A COMPANY OF VISHAY  
 1122 23RD STREET  
 P.O. BOX 609  
 COLUMBUS, NE. 68602-0609

SHIPPED TO:  
 UCLBNL-PROCARD  
 ATT:RUSS WELLS  
 MAIL STOP 70-314  
 2700 7TH ST.  
 BERKELEY, CA 94710

SOLD TO:  
 CREDIT CARD ACCOUNT

FEDXP2 09410651-6.\*C CUST PO 5350037

ORDER NUMBER	CUSTOMER P.O. NUMBER	WAYBILL NO.	INVOICE DATE	INVOICE NO.	PAGE
25357-95-0TH	5350037	45808711	020296	F26700	1
REP.	BUYER	A/R CODE	F.O.B.	SHIPPED VIA	SHIP DATE
10	F JOHN MEHREN	70000001	ORIGIN	FES	020296
REPL. NO. AS REQ.	D. P. DATE	CUST. CODE	PREPAID	COLLECT	TERMS
	020296	70000		XX	CREDIT CARD
NHI-	O/U SHIP 0-0				WAYBILL#2 11

RESISTORS

CONNECTORS

TORROIDS

OSCILLATORS

POWER CAPACITORS

TRANSFORMERS

CUSTOM MAGNETICS

PLASMA DISPLAYS

RESISTOR CAPACITOR NETWORKS

INDUCTORS

RHEOSTATS

THERMISTORS

TRIMMERS

RESISTOR NETWORKS

ITEM	DESCRIPTION	QUANTITY SHIPPED	EXTENDED PRICE
	PACKING LIST JD=31924030		
	001 PKGS. 00005 LBS 0 OZ.		
0001	ERC-65 T-9 1M OHMS .1 PKG-B14 CC 561060 U/M EA @ FM(RNC65J1004BR) SC01-0000200-122095 SC02-0001600-020596 MADE IN U.S.A. ROBERT R. DROZD	1600 1.13	1808.00
0002	HANDLING CHARGE OHMS PKG-S31 CC 561060 U/M EA @ SC01-0000001-020596 MADE IN U.S.A. ROBERT R. DROZD	7.50 LINE R121395 LINE R121395 TAB6-*	7.50
	MASTERCARD/5405011480000006 0696 ORD FROM EMP/TRM NOR45730/T5B9/DW72 CS* SEE CERT. BELOW ON PKG. LISTS	SER-01 SER-02 SER-03	
	ORDER COMPLETE		* PAY IN U.S. DOLLARS *
		SUB TOTAL	1815.50
		SHIPPING CHARGES	0.00
		TOTAL AMOUNT	1815.50

We hereby certify that these goods were produced in compliance with all applicable requirements of Sections 6, 7 and 12 of the Fair Labor Standards Act, as amended, and of regulations and orders of the United States Department of Labor Issued under Section 14 thereof.

WE RESERVE THE RIGHT TO UNDER AND/OR OVERSHIP UP TO 5% ON EACH ITEM.





Maxim Integrated Products  
 120 San Gabriel Drive  
 Sunnyvale, California 94086  
 (408) 737-7600  
 (408) 737-7194



CUSTOMER COPY

SALES ORDER NO. CC014386	PRINTED ON 02/09/96	PAGE 1
ORDER DATE 02/02/96	CONTRACT NUMBER	
CUSTOMER PURCHASE ORDER NUMBER 5104864691		

PACKING LIST

SHIPMENT NO. 1562797.6	DATE SHIPPED 02/09/96	BILL OF LADING NO. 1Z8549210102426220
METHOD OF SHIPMENT UPS RED	FREIGHT TERMS EX-FACTORY	WAREHOUSE SUNNYVLE-1

SHIP TO  
 LAWRENCE NATIONAL LABORATORY  
 ATN: STRIKHANOV  
 1310 EDISON ST  
 BERKELEY, CA 94702

CERN

BILL TO

SHIP TO CUSTOMER ▶ VC004288

BILL TO CUSTOMER ▶ VISACARD

LINE	PRODUCT NUMBER	SPECIAL INSTRUCTIONS	CURRENT QTY. BACKORDERED	QTY. SHIPPED	NEW QTY. BACKORDERED
1	MAX491ECPD		4.00	4.00	0.00

PACKING LIST

**ASSEMBLED IN**

U.S.A

JAPAN

KOREA

PHILIPPINES

\_\_\_\_\_

<small>CERTIFICATE OF COMPLIANCE We certify that the articles and/or services listed and shipped hereunder your purchase order mentioned above have been inspected and are in full accordance with the requirements of said purchase order and the drawings and specifications applicable to that order. We certify that inspection evidence, including test data, necessary to substantiate this certification is available from our files.</small>	PULLED BY	PACKED BY	DATE	CARTONS	TOTAL WEIGHT	SHIP CHARGES
--	-----------	-----------	------	---------	--------------	--------------



BLDG. ROOM

REQUESTED BY: MAIL CODE

RUSSELL WALLS L709 3307

BLDG. ROOM EXTENSION

70 314 7925

APPROVED BY DATE

L. W. T. 2/7/96

AUTHORIZED BY DATE

## SHIPPING DOCUMENT

SHIPPING DOCUMENT NUMBER

856116

FOR CONTRACT NO. W-7405-ENG. 48  
OR CONTRACT NO. DE-AC03-76SF00098  
WITH THE DEPARTMENT OF ENERGY

DATE	TYPED BY
PURCHASE ORDER NO.	ACCOUNT NUMBER
6406289	8052-24
SANL. NO.	BORROW NO.
LOAN NO.	S.R.R. NO.

 BERKELEY  SITE 300 LIVERMORE  NEVADA

SHIP TO

ATTENTION

ADDRESS

CITY, STATE AND ZIP CODE

DATE REQUIRED AT DESTINATION

VALUE OF MATERIAL

COLLECT

FREIGHT CHARGES

PREPAID

PREPAID-DEDUCT FROM INVOICE

SELLER'S PROPERTY   
LAB. (GOVT.) PROPERTY DECLARE VALUE ON WAYBILL   
DO NOT DECLARE VALUE ON WAYBILL 

"SELLER RETURN" AUTHORIZED BY

METHOD OF SHIPMENT:

ENTER CODE

METHOD OF SHIPMENT CODES:

- |                   |                    |                           |
|-------------------|--------------------|---------------------------|
| 1. PICK-UP        | 5. MOTOR FREIGHT   | 9. AIR FREIGHT            |
| 2. PARCEL POST    | 6. HAND CARRY      | 10. LAB TRUCK             |
| 3. UPS            | 7. AIR PARCEL POST | 11. DOE AIRCRAFT          |
| 4. FEDERAL EXP. 1 | 8. FEDERAL EXP. 2  | 12. AIR FREIGHT FORWARDER |
|                   |                    | 13. DOE COURIER           |

OTHER

REASON FOR SHIPMENT

RETURN SAMPLES OF CONTAMINATED PRODUCT  
TO MANUFACTURER

ITEM NO.	QUANTITY	DESCRIPTION	SERIAL, PROPERTY AND/ OR CATALOG NUMBER
1	4	SAMPLES OF CONTAMINATED RIGID NEMA G-10	
MATERIAL CLASSIFICATION			

## FOR USE BY SHIPPING SECTION ONLY

PACKED BY	NUMBER OF PKGS.	TYPE OF PKG.	WEIGHT	EQUIPMENT CHECKED BY
SHIPPED BY	DATE SHIPPED	CARRIER	WAYBILL NUMBER	
W	2/7/96	TNT	602253156	

RECEIVED BY \_\_\_\_\_ DATE \_\_\_\_\_



X 5917

ATTN JON WIRTH

ASSM SHOP.

FAX

**PAN AMERICAN COMPOSITES**

22682 Baltar, Mission Viejo, CA 92691

Tel & Fax 714-581-7051

Date: January 12, 1996

Total Pages 1

To: Mr. Russell Wells  
Lawrence/Berkeley Lab.  
Berkeley, CA 94720  
Fax: 510-486-7105

Subject: Return of  
Bromine contaminated  
laminates

---

Dear Russell:

Please return samples of contaminated rigid sheet to the following address.

Mr. Mark A. Erath, CEO  
Stesalit AG  
Kunststoffwerk  
CH-4234 Zullwil (Basel),  
Switzerland

Best Regards:

*Nick Spencer*

Nicholas Spencer

MAIL TO: BERCOVITZ

LAWRENCE BERKELEY LABORATORY

BLDG: ~~70~~ ROOM: ~~257~~  
25-123

-----  
FOLD TO HERE

LAWRENCE BERKELEY LABORATORY

CERTIFICATION TRANSMITTAL

SECOND NOTICE - 01/03/96

TO : BERCOVITZ

BLDG: 70

ROOM: 257

FROM: CONNIE BERRY  
ACCOUNTS PAYABLE

BLDG: 936B  
EXT: 4783

ROOM: 0268

PO#: 3847702

VENDOR: BUCKBEE - MEARS

INVOICE: 506752

DATE: 12/13/95

AMOUNT: \$7,944.20

THIS IS TO NOTIFY YOU THAT A CERTIFICATION NOTICE WAS SENT TO THE ABOVE CERTIFIER FOR THE ATTACHED INVOICE, AND THE NOTICE HAS NOT BEEN RETURNED TO ACCOUNTS PAYABLE BY THE DEADLINE.

PLEASE LOOK INTO THIS MATTER, AS THE INVOICE CAN NOT BE SCHEDULED FOR PAYMENT UNTIL CERTIFICATION HAS BEEN RECEIVED. IT WILL BECOME DELINQUENT ON \*\* 01/10/96 \*\*.



MAIL TO: BERCOVITZ

LAWRENCE BERKELEY LABORATORY

BLDG: ~~70~~ ROOM: ~~257~~  
25-123

-----  
FOLD TO HERE

LAWRENCE BERKELEY LABORATORY

CERTIFICATION TRANSMITTAL

SECOND NOTICE - 01/03/96

TO : BERCOVITZ

BLDG: 70

ROOM: 257

FROM: CONNIE BERRY  
ACCOUNTS PAYABLE

BLDG: 936B  
EXT: 4783

ROOM: 0268

PO#: 3847702

VENDOR: BUCKBEE - MEARS

INVOICE: 506712

DATE: 12/13/95

AMOUNT: \$7,938.80

THIS IS TO NOTIFY YOU THAT A CERTIFICATION NOTICE WAS SENT TO THE ABOVE CERTIFIER FOR THE ATTACHED INVOICE, AND THE NOTICE HAS NOT BEEN RETURNED TO ACCOUNTS PAYABLE BY THE DEADLINE.

PLEASE LOOK INTO THIS MATTER, AS THE INVOICE CAN NOT BE SCHEDULED FOR PAYMENT UNTIL CERTIFICATION HAS BEEN RECEIVED. IT WILL BECOME DELINQUENT ON \*\* 01/10/96 \*\*.

# Buckbee-Mears St. Paul

245 East 6th Street 6th Floor  
St. Paul, MN 55101-1918  
612/228-6400 Fax 612/228-6572

INVOICE NO.	506752
INVOICE DATE	11/22/95
1. REFER TO PACKING SLIP NO. ON ALL CORRESPONDENCE	
2. RETURNS MUST BE MADE WITHIN 45 DAYS AFTER SHIPPING DATE	
3. TERMS: NET 30 DAYS	

A UNIT OF **BMC** INDUSTRIES, INC.

\*\*\* PLEASE REMIT TO ADDRESS AT BOTTOM OF INVOICE \*\*\*

INVOICE  
1607 00 1607 01  
BILL TO: UNIV OF CA/LAWRENCE BERKELEY LAB SHIP TO: UCLBL/USDOE  
PO BOX 528 2700 7TH ST  
BERKLEY CA 94701 BERKLEY CA 94710

ATTN:LINDARAE AUBERT

SHIP DATE	DEFENSE	P.O. NUMBER	SHIP VIA	UPS NEXT DAY AIR
1/21/95		3847702	WAYBILL	-

EM	QUANTITY SHIPPED	UM	DESCRIPTION	UNIT PRICE	EXTENSION
	5	EA	P/N 24A1044 INNER PCB BMC PACKING SLIP#: 5495	1,567.8800	7,839.40
			REV.		
			ITEM SUBTOTAL:		7,839.40
	1		INSURANCE AND FREIGHT		104.80
			ADDL. CHG.		104.80
			ADDL. CHG. SUBTOTAL:		104.80

*signed 1/25/96*

DEPT.	SALESPERSON	BMC NUMBER	▽ PLEASE PAY ▽
48	9999 - 005 - 97 - OK	238859	7,944.20

\*\*\*\*\* REMIT TO INFORMATION \*\*\*\*\*

MAILING YOUR PAYMENT - DIRECT WIRE TRANSFERS -

BUCKBEE MEARS ST. PAUL BMC INDUSTRIES, INC.  
A UNIT OF BMC INDUSTRIES, INC. C/O BUCKBEE MEARS ST. PAUL  
PO BOX 73765 FIRST NATIONAL BANK OF CHICAGO  
CHICAGO IL 60673-7765 ACCOUNT #59-49599  
BANK ROUTING #071000013



# Buckbee-Mears St. Paul

A UNIT OF **BMC** INDUSTRIES, INC.

245 East 6th Street 6th Floor  
St. Paul, MN 55101-1918  
612/228-6400 Fax 612/228-6572

INVOICE NO.

506712

INVOICE DATE

11/20/95

\*\*\* PLEASE REMIT TO ADDRESS AT BOTTOM OF INVOICE \*\*\*

## INVOICE

<b>BILL TO:</b>	1607 00	<b>SHIP TO:</b>	1607 01
	UNIV OF CA/LAWRENCE BERKELEY LAB		UCLBL/USDOE
	PO BOX 528		2700 7TH ST
	BERKLEY CA 94701		BERKLEY CA 94710

1. REFER TO PACKING SLIP NO. ON ALL CORRESPONDENCE
2. RETURNS MUST BE MADE WITHIN 45 DAYS AFTER SHIPPING DATE
3. TERMS: NET 30 DAYS

ATTN: LINDARAE AUBERT

SHIP DATE	DEFENSE	PO. NUMBER	SHIP VIA
11/17/95		3847702	WAYBILL -

EM	QUANTITY SHIPPED	UM	DESCRIPTION	UNIT PRICE	EXTENSION
1	5	EA	P/N 24A1044 INNER PCB BMC PACKING SLIP#: 5462	1,567.8800	7,839.40
			REV.		
			ITEM SUBTOTAL:		7,839.40
4	1		INSURANCE AND FREIGHT		99.40
			ADDL. CHG. SUBTOTAL:		99.40

DEPT.	SALESPERSON	BMC NUMBER	PLEASE PAY
48	9999 - 005 - 97 - OK	238859	7,938.80

NOV 29 95 3:15 PM

*Signed 1/25/96 [Signature]*

\*\*\*\*\* REMIT TO INFORMATION \*\*\*\*\*

MAILING YOUR PAYMENT -

DIRECT WIRE TRANSFERS -

BUCKBEE MEARS ST. PAUL  
A UNIT OF BMC INDUSTRIES, INC.  
PO BOX 73765  
CHICAGO IL 60673-7765

BMC INDUSTRIES, INC.  
C/O BUCKBEE MEARS ST. PAUL  
FIRST NATIONAL BANK OF CHICAGO  
ACCOUNT #59-49599  
BANK ROUTING #071000013

RUSS -

IS THIS THE  
INNER SECTOR PROTOTYPE  
PAD PLANE? ARE WE  
GOING TO PAY FOR IT?

JOHN

YES & YES, RIGHT? ☺



# Buckbee-Mears St. Paul

245 East 6th Street 6th Floor  
St. Paul, MN 55101-1918  
612/228-6400 Fax 612/228-6572

INVOICE NO.	504823
INVOICE DATE	08/02/95
1. REFER TO PACKING SLIP NO. ON ALL CORRESPONDENCE	
2. RETURNS MUST BE MADE WITHIN 45 DAYS AFTER SHIPPING DATE	
3. TERMS: NET 30 DAYS	

A UNIT OF BMC INDUSTRIES, INC.

\*\*\* PLEASE REMIT TO ADDRESS AT BOTTOM OF INVOICE \*\*\*

INVOICE

BILL TO:	1607 00	SHIP TO:	1607 01
	UNIV OF CA/LAWRENCE BERKELEY LAB		UCLBL/USDOE
	PO BOX 528		2700 7TH ST
	BERKLEY CA 94701		BERKLEY CA 94710

ATTN: LINDARAE AUBERT

SHIP DATE	DEFENSE	P.O. NUMBER	SHIP VIA	
08/01/95		3847702	WAYBILL	0246923880

EM	QUANTITY SHIPPED	UM	DESCRIPTION	UNIT PRICE	EXTENSION
1	1	EA	P/N 24A1044 INNER PCB BMC PACKING SLIP#: 3560	1,567.8800	1,567.88
			REV.		
			ITEM SUBTOTAL:		1,567.88
3	1		FREIGHT CHARGE		38.75
			ADDL. CHG. SUBTOTAL:		38.75

RECEIVED  
 LBL  
 ACCOUNTS PAYABLE  
 AUG-8 95 12:50 PM

DEPT.	SALESPERSON	MONTALBANO & ASSC.	BMC NUMBER	▽ PLEASE PAY ▽
48	1977 - 005 - 32 - OK		238859	1,606.63

\*\*\*\*\* REMIT TO INFORMATION \*\*\*\*\*

MAILING YOUR PAYMENT -	DIRECT WIRE TRANSFERS -
-----	-----
BUCKBEE MEARS ST. PAUL	BMC INDUSTRIES, INC.
A UNIT OF BMC INDUSTRIES, INC.	C/O BUCKBEE MEARS ST. PAUL
PO BOX 73765	FIRST NATIONAL BANK OF CHICAGO
CHICAGO IL 60673-7765	ACCOUNT #59-49599
	BANK ROUTING #071000013



**STESALIT AG**

Faserverbund Technologie  
Advanced Composite Systems

CH-4234 Zullwil/Basel

Telefon (41) 61 791 06 01  
Telefax (41) 61 791 06 04  
Postcheckkonto 40-27495-3  
Bank: SKA Basel  
Credit Swiss  
Swift Nr. CRESCHZZ40A  
MWSt. Nr. / VAT No. 184 107

Betriebsferien  
Vacances  
17.07. - 01.08.95



University of California  
Lawrence Berkeley Laboratory  
~~Purchasing Dept.~~ Accounting Dept  
P.O. Box 528  
USA- Berkeley, CA 94701

Date	Customer No.	Document No.
950623	121395	950349

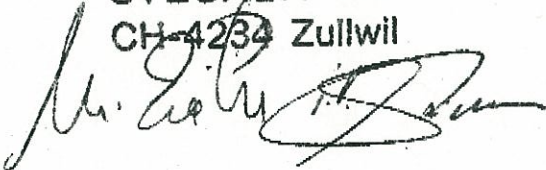


Remarks:

Your order No.: 6406289

Delivery conditions: FOB arrival SFO Airport, uncleared, w/o US customs duty

Payment conditions : Invoice to be paid within 60 days after its issue.  
 SWIFT bank transfert to STESALIT AG banc account at  
 Credit Swiss New York, NY10008-3700, P.O. Box 3700,  
 Church Street Station, Account no. 35257801, SWIFT  
 Code CRESUS 33.

Order	Pos Item No.	Designation/Dimension/Material	Qty ordered	Del:YearWeek	Price	¢	Amount
0PC3295045	1	1220X2440X4.57 CU Sheet, 1-sided copper 70 micron 1220 x 2440 x 4.57 mm Stesalit 4412FG	2	piece YNN 9527	1616.94	0	3233.88
	2	1220X2440X0.8 CU Sheet, each sided copper 70 micron 1220 x 2440 x 0.8 mm Stesalit 4412FG	1	piece 9527	1667.24	0	1667.24
	3	1220X2440X3.0 CU Sheet, each sided copper 70 micron 1220 x 2440 x 3.0 mm Stesalit 4412FG	1	piece 9527	1824.14	0	1824.14
Delivery address: UC Lawrence Berkeley Lab. for the U.S. Dept. of Energy Attn: P.O. 6406289 USA-CA 94710 Berkeley.			← 2700 7 <sup>TH</sup> ST				
Invoice adress: University of California Lawrence Berkeley Laboratory Accounts Payable Dept. USA- Berkeley, CA 94701			→ P.O. Box 528				
STESALIT AG CH-4234 Zullwil 							
Prices excl. VAT					Total	USD	6725.26

PRINT NUMBERS

UNIVERSITY OF CALIFORNIA  
LAWRENCE BERKELEY LAB

SERIAL NUMBER

REQUEST FOR PROCUREMENT

REQUESTER R. WELLS DATE REQUESTED 11-20-95

DELIVER TO JOHN WIRTH DATE NEEDED 11-27-95

BLDG 77A ROOM ASSEM SHOP PHONE NUMBER 7925

ACCOUNT NO. 8052-24 AUTHORIZED SIGNATURE Russell Wells

QUANTITY	DESCRIPTION	APPROX PRICE
60	SPRING, MUSIC WIRE # C0975-162-2500 0.975" OD w/ 0.162" WIRE DIA. 2.5" LONG	\$ 3.4 EA

VENDOR <u>ASSOCIATED SPRING</u>	SHIP CODE _____
ADDRESS _____	TOTAL COST _____
CITY _____ STATE _____	P.O. NO. _____
PHONE NUMBER <u>800-872-7732</u>	TERMS _____
CONTACT <u>CECILIA</u>	PICK UP DATE _____
REMARKS <u>STOCK IN WISCONSIN</u>	TIME AFTER _____
REQUISITION NUMBER _____	CLOSED DURING LUNCH YES <input type="checkbox"/> NO <input type="checkbox"/>
	VEHICLE _____



**UNIVERSITY OF CALIFORNIA  
LAWRENCE BERKELEY LABORATORY**  
FOR CONTRACT NO. DE-AC03-76SF00098  
WITH THE DEPARTMENT OF ENERGY

**Vendor: Associated Springs**  
15001 South Broadway  
Gardena CA 90248

**SHIP TO:**  
UC Lawrence Berkeley Lab  
For the US Dept of Energy  
2700 - 7th Street  
Berkeley CA 94710

MAIL INVOICE IN DUPLICATE TO  
UNIVERSITY OF CALIFORNIA:

UC Lawrence Berkeley Lab  
Accounts Payable Dept  
PO Box 528  
Berkeley CA 94701

**Purchase Order**

**Purchase Order#**  
6417187

Page  
1

This purchase order number MUST appear on all invoices, packing lists, cartons and correspondence related to this order.

**Date of Order**  
20-NOV-95

**Buyer**  
J MOREAU  
510-486-5523

**Revision Date**  
Buyer

<b>Customer Account</b>	<b>Vendor No.</b> 101598	<b>Payment Terms</b> Net 30 Days	<b>Transportation Terms</b> Acct. of Univ	<b>F.O.B.</b> <b>Shipping Point</b>	<b>Ship Via</b> FedEx GOS
-------------------------	-----------------------------	-------------------------------------	--	--	------------------------------

**Vendor Contact**  
(310) 323-4833

Requester / Deliver to  
WELLS, RUSSELL P.

FOR RESALE- State Sales Tax should not be charged, as the University holds State Sales Tax Permit SR CH 21-885970 for deliveries to Lawrence Berkeley Laboratory.

LINE	PART NUMBER/DESCRIPTION	DELIVERY DATE	QUANTITY	UNIT	UNIT PRICE	EXTENSION	TAX
1	*** CONFIRMED TO: ANITA ON 20-NOV-95 -- DO NOT DUPLICATE! Springs, music wire, #C0975-162-2500, 0.975 od x 0.162 wire x 2.5 " long.	27-NOV-95	60.0	EA	3.11	186.60	N

**TOTAL:** 186.60

The Terms and Conditions Attached  
Constitute A Part Of This Order

-Requester's copy-

Authorized by

UNIVERSITY OF CALIFORNIA

ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date  Account No.  Serial No.   
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.  11-8-95 8052-24 034633

Ordered By: Ext. Refer Questions To: Ext.   
 AL RAWLINS 4142 SAME

Job Requested By: (Client) Ext.   
 RUSS WELLS 7925

Design Check By: (Engineer Responsible) Ext. \_\_\_\_\_

Production Check By: Date Authorized By: Date   
 R. Miller 11-8-95 Russell Wells 11/8/95

Job Description: Residual Risks Accepted   
 PHIC-STAR-TPC By: \_\_\_\_\_

INNER SECTOR   
 STRONGBACK O-RING GROOVE MACH.

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	J. WIRTH	77			1/8/95
ASSEMBLY					

REFERENCE DISTRIBUTION		PRINTS		
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.
RAWLINS	70A	3307	1	1
WELLS	41	41	1	
WIRTH	77	125	1	

WORK DISTRIBUTION							
CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	DWGS.
MECH. ENG.				MECH. SHOP OFF.		2	2
MECH. TECH. OFF.				ASS'Y SHOP			
SHOP 25				MACH. SHOP			
SHOP 71				PAINT SHOP			
SHOP				SHEET METAL			
SHOP				WELDING SHOP			
ELECT. ENG.				C&M OFFICE			
COORDINATING				CARPENTERS			
DRAFTING				ELECTRICIANS			
ELECT. FAB.				LABORERS			
ELECT. INSTALL				MAINT. TECHS			
ELECT. MAINT.				PAINTERS			
ELECT. Q.A.				PLUMBERS			
OPER. CHECK							
TECH. SUPP.				TOTAL HRS	216	AT	54 HR.
ELEC-MECH. 80				LABOR	\$		
SAFETY SHOPS				MATERIAL	\$		
SAFETY/ENVIRONMENTAL				TOTAL	\$	12,000.00	
ANALYSIS				FABRICATION:			
BY: _____				<input type="checkbox"/> LBL SHOPS			
DATE: _____				<input type="checkbox"/> OUTSIDE SHOPS			
PRELIM. _____				Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000			
FINAL _____							

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

PRINT DIVISION  
 MECH ENGR DEPT  
 LBL PERKELLY  
 NOV 8 2 56 PM '95

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME - DESCRIPTION - INSTRUCTIONS
1		24A3816	27	FINAL O-RING GROOVE MACHINING

JOB ORDER



REQUESTED BY <b>Jon WIRTH</b>	EMPLOYEE NO. <b>975625</b>	PHONE <b>5901</b>	ACCOUNT NO. <b>8052-24</b>	TAG OR SERIAL NO. OF JOB	MFG	DATE NEEDED <b>ASAP</b> <input type="checkbox"/> ROUTINE
DELIVER TO <b>SAME</b>	NAME	MAIL CODE <b>77-125</b>	DEPARTMENT <b>Mech Eng</b>	BLDG. <b>77</b>	ROOM	
K PACKAGE AS FOLLOWS (INCLUDING BACK ORDERED ITEMS)			AUTHORIZED SIGNATURE (CONTROLLED ITEMS ONLY) <i>Russell Well</i>			

ITEM NO.	LAB STOCK CATALOG NO.	QUANTITY REQUIRED	UNIT OF ISSUE	CHECK IF B.O. REQ'D.	DESCRIPTION OF ITEM	QUANTITY	
						SENT	B.O.
1	6810-46175	1	GL		GOLD SHIELD ETHYL ALCOHOL 190 PROOF		
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

REMARKS:

UNFILLED ITEMS TO BE BACKORDERED OR FURNISHED BY ANOTHER SITE. YOU WILL BE NOTIFIED OF ACTION TAKEN.

*Jon Wirth*  
 \_\_\_\_\_  
 SIGNATURE OF REQUESTER

DISTRIBUTION OF COPIES:

Send white, yellow and green copies to issue location. Retain pink copy. After order is filled, yellow copy will be returned to requester.

ORDER FILLED BY \_\_\_\_\_

DATE \_\_\_\_\_

DATE \_\_\_\_\_

~~MAIL TO: BERCOVITZ~~

~~LAWRENCE BERKELEY LABORATORY~~

~~BLDG: 70 ROOM: 257~~

-----  
FOLD TO HERE

LAWRENCE BERKELEY LABORATORY

CERTIFICATION TRANSMITTAL

FIRST NOTICE - 03/14/96

TO : BERCOVITZ

BLDG: 70

ROOM: 257

FROM: CONNIE BERRY  
ACCOUNTS PAYABLE

BLDG: 936B  
EXT: 4783

ROOM: 0268

PO#: 3847702

VENDOR: BUCKBEE - MEARS

INVOICE: 507962

DATE: 03/14/96

AMOUNT: \$11,090.66

PLEASE SIGN THE CERTIFICATION BELOW, AND RETURN TO ACCOUNTS PAYABLE BY  
\*\* 03/28/96 \*\*

NOTE THAT IF THIS NOTICE IS NOT RETURNED PROMPTLY, A SECOND REQUEST  
WILL BE SENT TO YOUR DIVISION ADMINISTRATOR.

\*\*\*\*\*

\* THIS IS TO CERTIFY THAT THE MATERIALS AND/OR SERVICES STATED ON \*  
 \* THIS INVOICE WERE RECEIVED OR RENDERED IN ACCORDANCE WITH THIS \*  
 \* PURCHASE ORDER. \*  
 \* \*  
 \* IN ADDITION, THE AMOUNTS CHARGED ARE IN AGREEMENT WITH THE \*  
 \* VENDOR'S PRICE SCHEDULE REFERENCED BY THE PURCHASE ORDER. \*  
 \* \*  
 \* \*  
 \* BY & DATE: \_\_\_\_\_ ACCOUNT NO. \_\_\_\_\_ \*  
 \* \*  
 \*\*\*\*\*



INVOICE NO.	507962
INVOICE DATE	02/12/96
1. REFER TO PACKING SLIP NO. ON ALL CORRESPONDENCE	
2. RETURNS MUST BE MADE WITHIN 45 DAYS AFTER SHIPPING DATE	
3. TERMS: NET 30 DAYS	

\*\*\* PLEASE REMIT TO ADDRESS AT BOTTOM OF INVOICE \*\*\*

INVOICE

<b>BILL TO:</b>	1607 00	<b>SHIP TO:</b>	1607 01
	UNIV OF CA/LAWRENCE BERKELEY LAB		UCLBL/USDOE
	PO BOX 528		2700 7TH ST
	BERKLEY CA 94701		BERKLEY CA 94710

ATTN: LINDARAE AUBERT

SHIP DATE	DEFENSE	P.O. NUMBER	SHIP VIA	UPS NEXT DAY AIR
02/09/96		3847702	WAYBILL	-

ITEM	QUANTITY SHIPPED	UM	DESCRIPTION	UNIT PRICE	EXTENSION
01	7	EA	P/N 24A1044 INNER PCB BMC PACKING SLIP#: 6698	1,567.8800	10,975.
06	1		FREIGHT CHARGE		115.
				ITEM SUBTOTAL:	10,975.
				ADDL. CHG. SUBTOTAL:	115.

RECEIVED  
 LBL  
 ACCOUNTS PAYABLE  
 FEB 22 96 5:15 PM

DEPT.	SALESPERSON	BMC NUMBER	▽ PLEASE PAY ▽
48	9999 - 005 - 97 - 0K	238059	11,090.6

\*\*\*\*\* REMIT TO INFORMATION \*\*\*\*\*

MAILING YOUR PAYMENT -

DIRECT WIRE TRANSFERS -

BUCKBEE MEARS ST. PAUL  
 A UNIT OF BMC INDUSTRIES, INC.  
 PO BOX 73765  
 CHICAGO IL 60673-7765

BMC INDUSTRIES, INC.  
 C/O BUCKBEE MEARS ST. PAUL  
 FIRST NATIONAL BANK OF CHICAGO  
 ACCOUNT #59-49599  
 BANK ROUTING #071000013

PRINT NUMBERS

UNIVERSITY OF CALIFORNIA  
LAWRENCE BERKELEY LAB

SERIAL NUMBER

REQUEST FOR PROCUREMENT

REQUESTER R. WELLS DATE REQUESTED 2/26/97

DELIVER TO FRED BIESER DATE NEEDED 3/7/97

BLDG 50 ROOM 245 PHONE NUMBER 7925

ACCOUNT NO. 8052-24 AUTHORIZED SIGNATURE Theresa Wells

QUANTITY	DESCRIPTION	APPROX PRICE
----------	-------------	--------------

201	PLATE ALUMINUM BRACKETS WITH 0.0003" NICKEL FOLLOWED BY 0.000001" TO 0.000005" OF GOLD  LBL TO SUPPLY BRACKETS (LOCATED IN B50/245) - FRED BIESER'S OFFICE)	# 1.75 EA
-----	--	-----------

TIN

VENDOR <u>ELECTROCHEM</u>	SHIP CODE _____
ADDRESS <u>25020 VIKING ST.</u>	TOTAL COST _____
CITY <u>HAYWARD</u> STATE <u>CA</u>	P.O. NO. _____
PHONE NUMBER <u>887-5559</u>	TERMS _____
CONTACT <u>LOU</u>	PICK UP DATE _____
REMARKS	TIME AFTER _____
<u>VENDOR PROMISES DELIVERY W/IN 1 WEEK</u>	CLOSED DURING LUNCH YES <input type="checkbox"/> NO <input type="checkbox"/>
REQUISITION NUMBER _____	VEHICLE _____

faxed 2/26/97



24



STAR PROJECT MANAGEMENT OFFICE

Lawrence Berkeley Laboratory  
1 Cyclotron Road, MS 70A/3307  
Berkeley, CA 94720

FAX Transmittal

Date: 9/22/95

To: PAUL WYATT (612) 228-6572  
BMC

From: RUSS WELLS Phone: (510) 486-7905  
FAX: (510) 486-7105

No. of pages to follow: 3

PLEASE FIND A PORTION OF THE INNER  
SECTOR PCB SCHEMATIC REPRODUCED ON  
3 PAGES

PAGE 1 - GIVES LOCATION OF INCORRECTLY  
CODED CONNECTOR

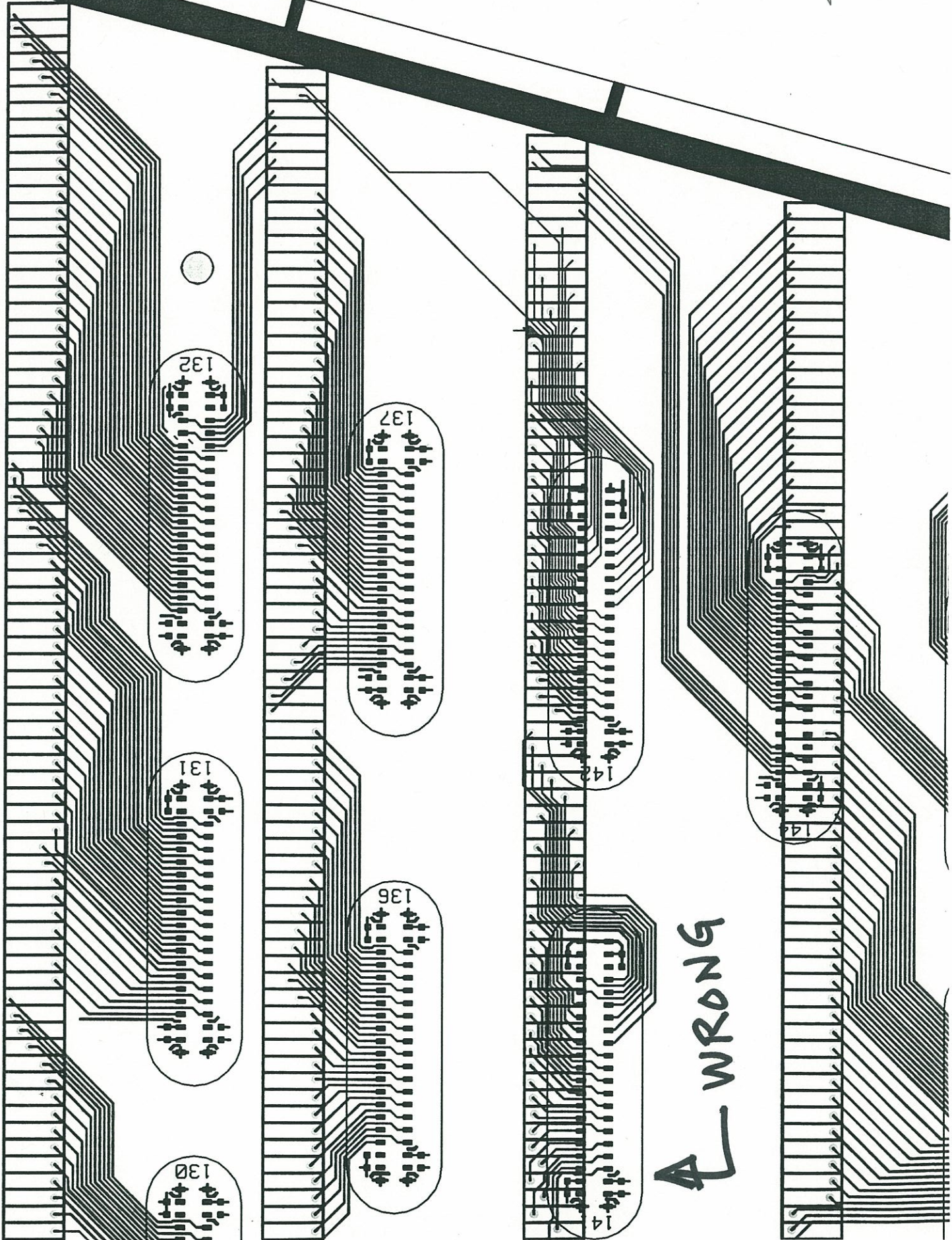
PAGE 2 - ENLARGED VIEW OF EXISTING  
(WRONG) CONNECTOR TRACE

PAGE 3 - ENLARGED VIEW OF CORRECTED  
SCHEMATIC.

REQUIRED FIX - MOVE PAD TO PAD CONNECTION  
TO THE LEFT ONE PIN.

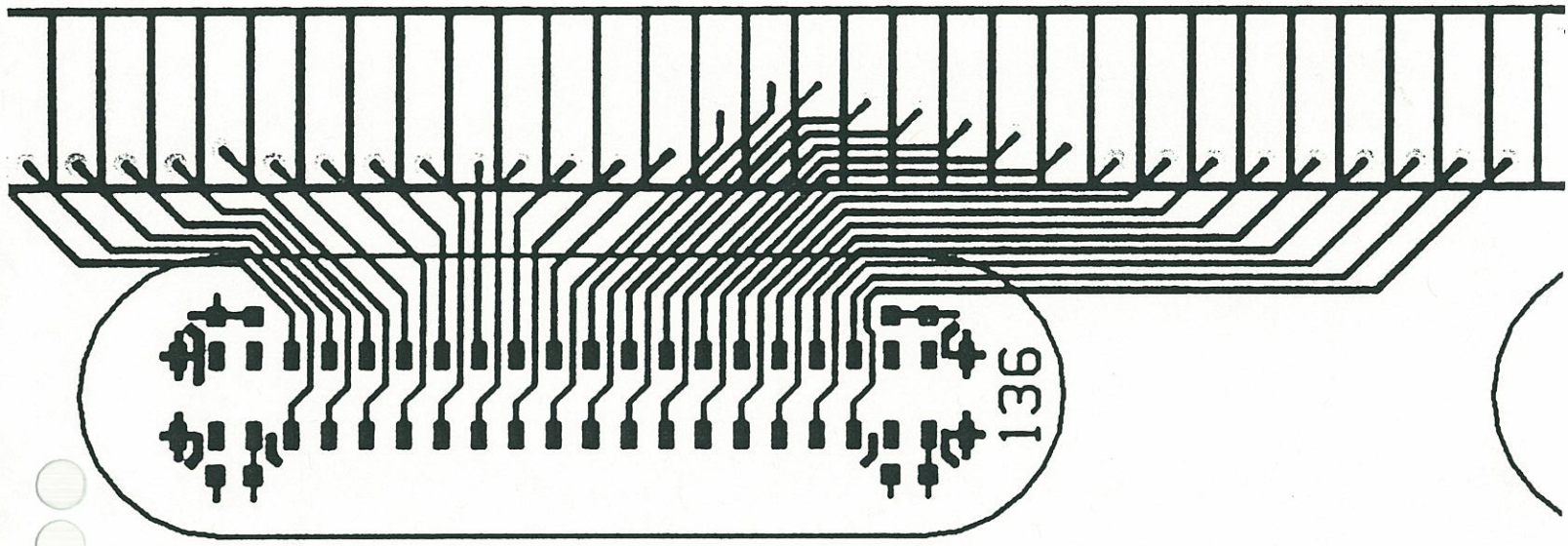
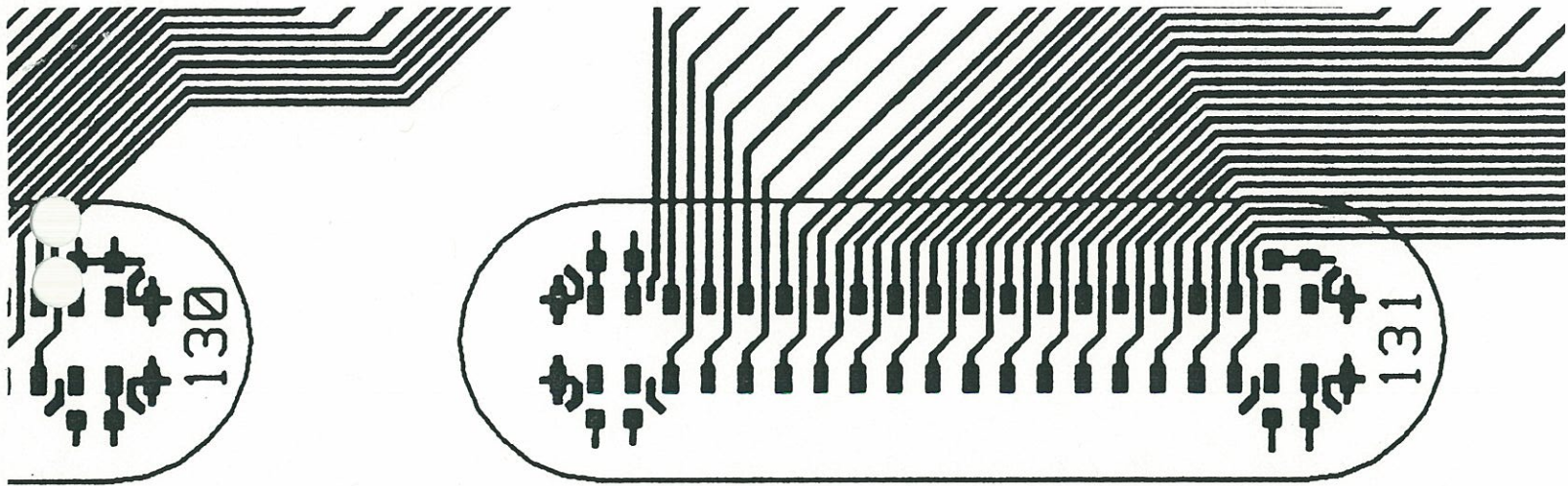


CONNECTOR SIDE -

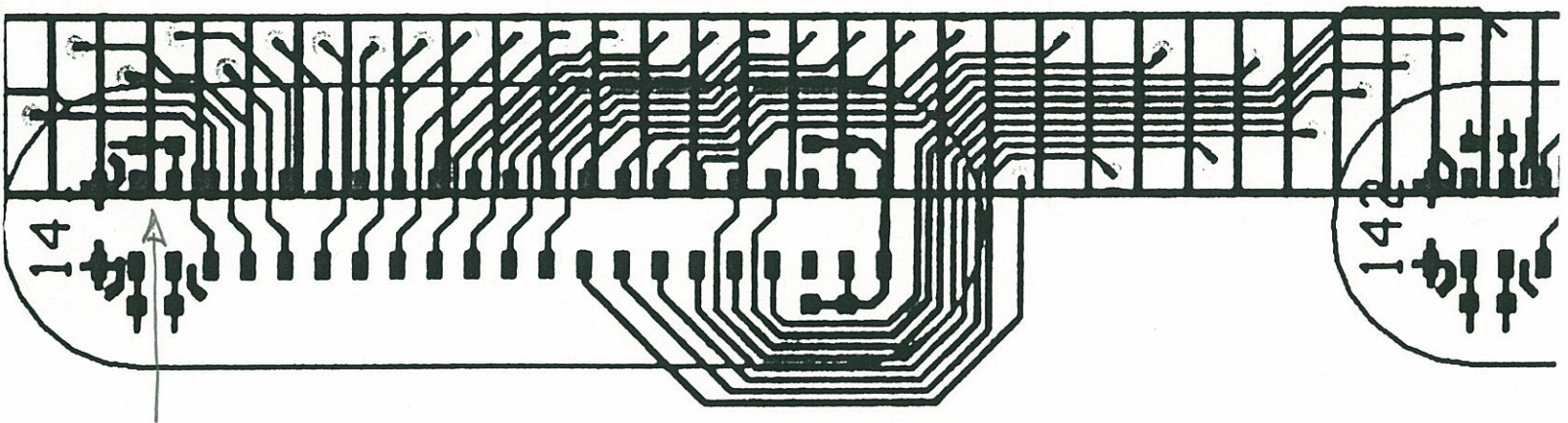


A  
WRONG

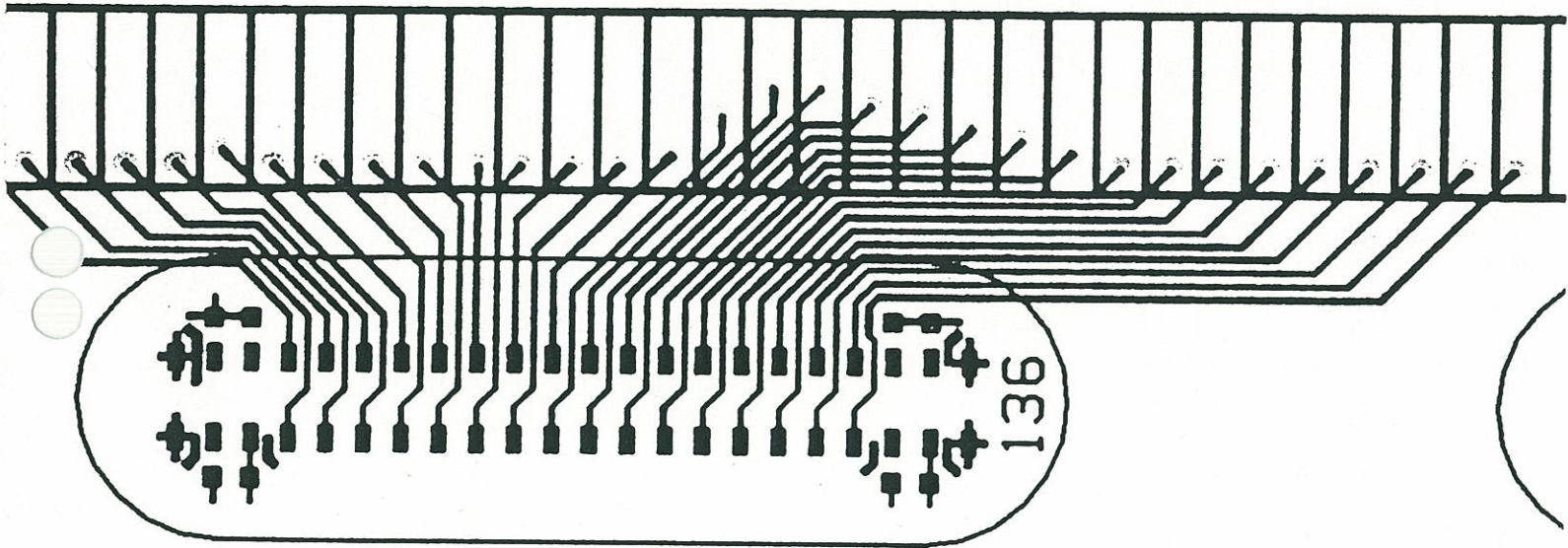
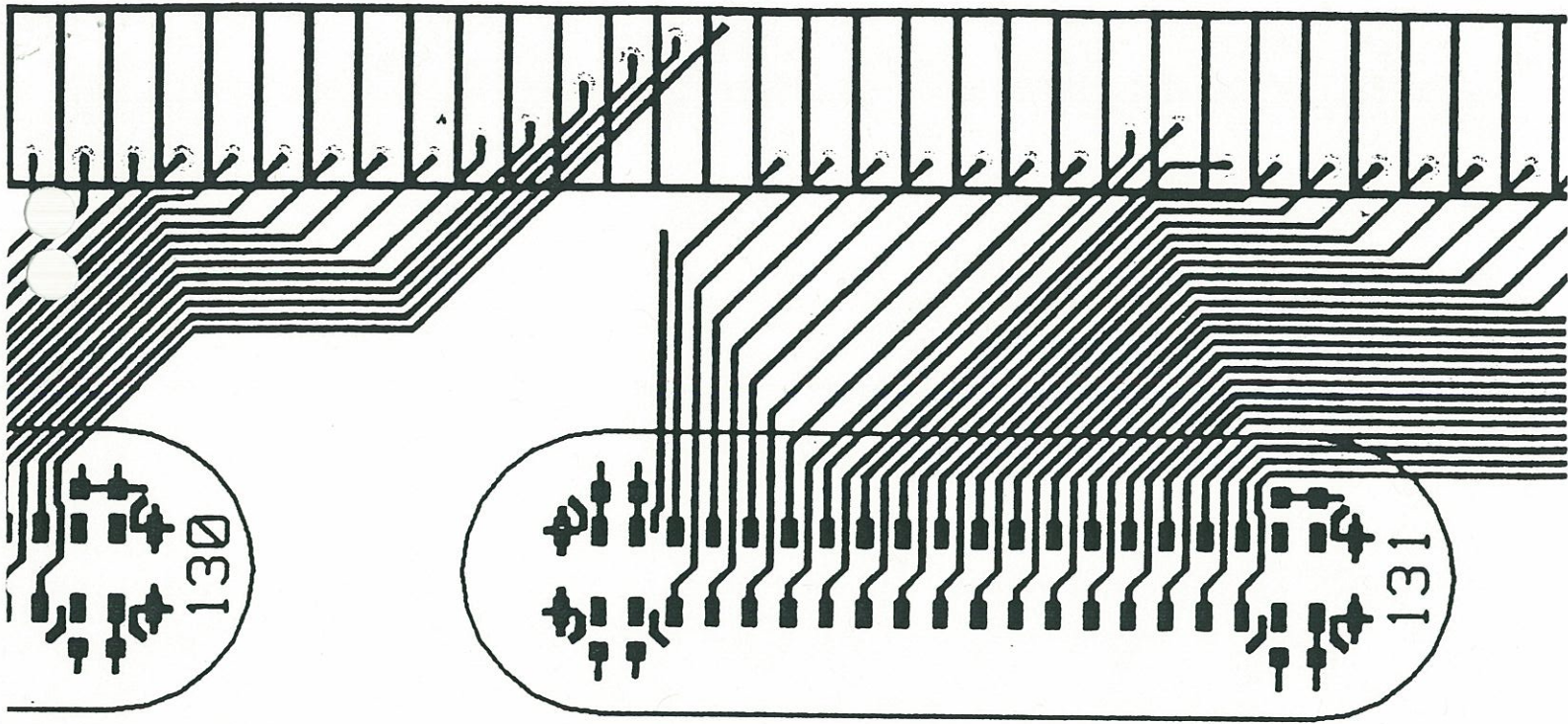




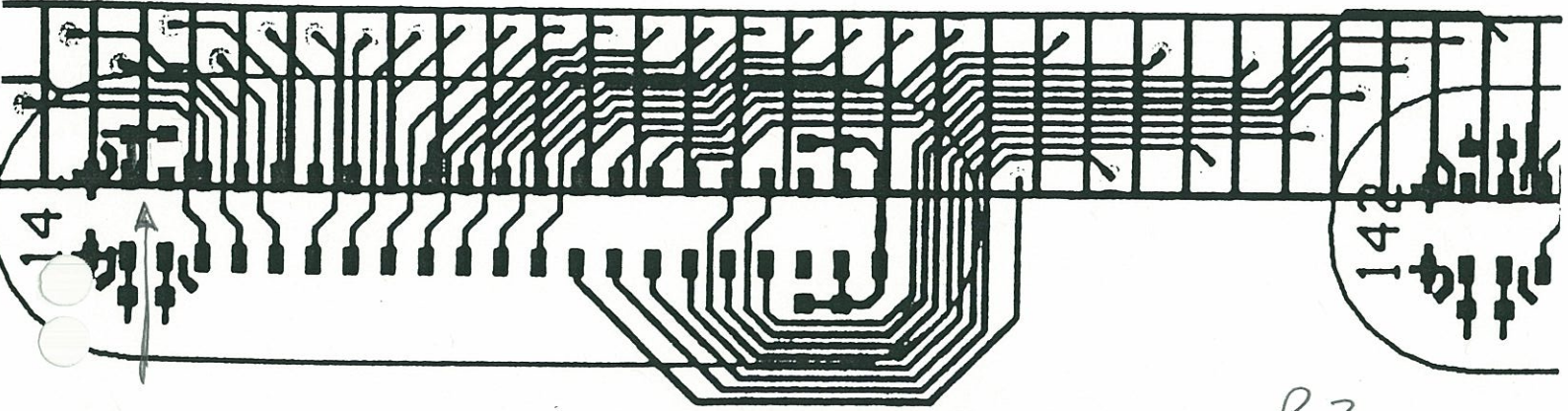
NOT CORRECT







CORRECT





DATE: 07-SEP-95

LBL PACKING LIST  
\*\*\*\*\*

Requisition Number

PO Number 6406732

Total PO Amount 1,842.00

*Reg #*  
*1705-01*

```

+++++
+ Deliver To          SMITH-BURNETT, WANDA J.          +
+ Location            070A 3307B                      +
+++++

```

Account Number 8052-24

Job Order Number

Receipt Number 22905

Received By ADLUIZ On 07-SEP-95

Vendor Name	Buyer Name	Phone
Apple Computer Inc	BARRETT, SHARON A.	510-486-5461

Line	Item Description	Ordered	Received	Open
2	Power Mac AV Card	1	1.00	.00

*John Kimball*  
*Steve ~~Mc~~ Abraham*  
*Maureen Cowger*

COPY FOR YOUR RECORD ONLY

MCR Associates, Inc.  
111 W. Evelyn Avenue, Suite 301  
Sunnyvale, CA 94086  
408/736-1636

# Invoice

DATE	INVOICE NO.
09/01/95	950928

BILL TO
Lawrence Berkeley Laboratories Accounting Office PO Box 528 Berkeley CA 94701

SHIP TO
Lawrence Berkeley Laboratories One Cyclotron Road Berkeley, CA 94720

P.O. NO.	TERMS	DUE DATE
3593100	Net 30	10/01/95

DESCRIPTION	QTY	RATE	AMOUNT
ANSYS Finite Element Analysis Program License Fee - 4 Task Network License September 1995 CSA Discount	1	4,000.00	4,000.00
		-43.00%	-1,720.00
3624-71 - 570.00			
4540-18 - 855.00			
7420-33 - 285.00			
8052-25 - 285.00			
4568-21 - 285.00			
<b>Total</b>			\$2,280.00

PAID PER MARTIN FONTS  
MEMO

SHASHI  
X6952









LASCO J. MEHREN

JOB ORDER  PROCUREMENT

MAKE/BUY NO. \_\_\_\_\_

PAGE 1 OF 1

ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 8/25/95 Account No. 8052-24 Serial No. 334506  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: Ext. Eric ANDERSSON 5019 Refer Questions To: Ext. E. ANDERSSON 5019  
 Job Requested By: (Client) Ext. JOHN WIRTH 59101  
 Design Check By: (Engineer Responsible) Ext. \_\_\_\_\_

WORK DISTRIBUTION								
CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	
MECH. ENG.				MECH. SHOP OFF.				
MECH. TECH. OFF.				ASS'Y SHOP				
SHOP 25				MACH. SHOP				
SHOP 71				PAINT SHOP				
SHOP				SHEET METAL				
SHOP				WELDING SHOP				
ELECT. ENG.				C&M OFFICE				
COORDINATING				CARPENTERS				
DRAFTING				ELECTRICIANS				
ELECT. FAB.				LABORERS				
ELECT. INSTALL				MAINT. TECHS				
ELECT. MAINT.				PAINTERS				
ELECT. Q.A.				PLUMBERS				
OPER. CHECK								
TECH. SUPP.				TOTAL HRS	AT	HR.		
ELEC-MECH. 80				LABOR	\$			
				MATERIAL	\$			
				TOTAL	\$	2000	-	
				SAFETY/SHOPS				
				SAFETY/ENVIRONMENTAL				
				ANALYSIS				
				BY:		DATE:		
				PRELIM.				
				FINAL				

Production Check By: Date SR Mehren 8/29/95 Authorized By: Date Thumel W...  
 Job Description: STAR TPC Residual Risks Accepted \_\_\_\_\_  
 By: \_\_\_\_\_

SECTORS  
 ANODE WIRE WIND

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	<u>John Wirth</u>	<u>77</u>	<u>Assy</u>	<u>59101</u>	<u>10/4/95</u>
ASSEMBLY					

REFERENCE DISTRIBUTION			PRINTS	
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.
<u>Russ Wells</u>	<u>70</u>	<u>314</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>John Wirth</u>	<u>77</u>	<u>Assy</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>John Bercowitz</u>	<u>70</u>	<u>257B</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

JOB ORDER

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

P.O. 6411738

PRINT DIVISION  
 MECH ENGR DEPT  
 -BL BERKELEY  
 8 22 AM '95

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME	DESCRIPTION	INSTRUCTIONS
1			10 spools	20m LUMA WIRE # 821/60	STRAIGHTNESS GRADE 1	QUALITY 2%, Gold PLATED R15 SPOOL -- EXTREME REGULARITY OF WIND ONTO SPOOL REQUIRED MINIMUM LENGTH/SPOOL = 1600m SPECIAL SURFACE QUALITY FOR WIRE CHANGE
				VENDOR rec'd: SAES GETTERS (719) 576-3200		
				PO# of LAST ORDER #6402567		

mani Prep & Prime cost

	Headers	120 x 35	4200
	Tube sets	60 x \$400	24000
	masking	60 x 150	9000
			37200



Cooling Mani Parts Cost

J.O. # 34294	\$9,033.08
J.O. # 34295	\$9,033.08
J.O. # 34364	\$27,775.40
J.O. # 34323	\$9,247.88
J.O. # 34322	\$9,313.43
J.O. # 34376	\$18,109.40
	\$82,512.27



*Campbell 4592 Records. Show 100 rec'd only.*

10-7

REQUESTER <b>R. WELLS / S. CHOW</b>	BLDG. & ROOM <b>25A - 119</b>	DELIVER TO: <b>S. CHOW</b>	BLDG. ROOM <b>25A - 131</b>	NOTIFY <b>STEVE CHOW</b>	EXTENSION <b>5948</b>	HOLD FOR / O
APPROVED BY <i>Russell Wells</i>	ACCOUNT NO. <b>8052-24</b>				REQ. NO. <b>137060</b>	
AUTHORIZATION \$10,000 <b>5850488</b>		OVER <input type="checkbox"/>				

REQ. DATE <b>8/25/94</b>	DATE NEEDED <b>09/21/94</b>
COST NOT TO EXCEED <b>\$1,700.00</b>	

UNIVERSITY OF CALIFORNIA  
PURCHASE REQUISITION  
FOR CONTRACT NO. DE-AC03-78SF0009  
WITH THE  
DEPARTMENT OF ENERGY

RETAIN LAST COPY SEND ALL OTHER COPIES TO PURCHASING

HAZARD REVIEW - Enter one of the letters in the box below.

<input checked="" type="checkbox"/> N	C. Chemical	L. Laser	S. Service Contracts
	R. Radiological	M. Microwave	O. Other Hazards
	B. Biological	X. X-Ray	N. No Hazards

ITEM NO.	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY
	<b>*STAR* FABRICATION (LOAD PWB'S)</b>	
	<b>INSTALLATION AND ASSEMBLY OF COMPONENTS ON PWB'S SHALL BE DONE IN STRICT ACCORDANCE WITH UCLBL ENGINEERING INSTRUCTION NUMBER 137060.</b>	
1.	<b>A000871U1 REV. B (ANODE SIGNAL FEEDTHRU)</b>	<b>360 EA</b>
2.	<b>A000871U1 REV. A (ASFB)</b>	<b>30 EA</b>
3.	<b>NRE/SOLDER STENCILS (2)</b>	<b>1 Lot</b>
	<b>PROMEX 3075 Oakmead Village Dr. Santa Clara, CA 95051 Attn.: MICHAEL GRIFFIN (408) 496-0222 FAX: (408) 496-0117</b>	

10/5/94  
10/5/94  
70639

REMARKS: **9/15 + 3 WKS = 10/6**

AVAILABLE FROM: D  
 Y N A E  
 Y N A D  
 Y N A S  
 State, UC, LBL Y N A Price Responsibility  
 Blind-Prison Y N A Authorized Price List No. **a. Campbell**  
 Price List Date



DATE 8/31/95

TO: John Boehm

FROM: TOM WEST  
BUILDING 77, ROOM 123B  
PLANNING & ESTIMATING OFFICE

The attached report summarizes the estimate for your Job Order Number \_\_\_\_\_. This report documents the initial cost estimate including all Engineering Division burden. The Laboratory accounting system will add the appropriate overhead rates. The numbers across the top of the report denotes Building 77's Departments.

Please call if you have any questions regarding the attached.  
The **CONTACT PERSON** for this job is Jack Smith EXT. 5901

MECHANICAL SHOPS

- SHOP 1..... INSPECTION..... JEROME CUMMINGS
- SHOP 2..... NC MACHINING..... JACK SMITH
- SHOP 2A.. NC PROGRAMING..... JACK SMITH
- SHOP 3..... CONVENTIONAL MACHINING..... JACK SMITH
- SHOP 4..... PLANNING & ESTIMATING OFFICE..... TOM WEST
- SHOP 6..... SHEET METAL..... JEFF CAIN
- SHOP 7..... WELDING ..... JEFF CAIN
- SHOP 7A.. NC WELD (BURN TABLE)..... JEFF CAIN
- SHOP 8..... CERAMICS..... ANDREW MEI
- SHOP 9..... GLASS..... TOM ORR
- SHOP 10... ASSEMBLY..... DICK JOHNSON
- SHOP 12... PLATING..... AL HARCOURT
- SHOP 13... TOOL GRINDING..... GARY GERUE
- SHOP 20... PAINT (SAND BLAST)..... GARY GERUE



24

ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date: 8/16/95 Account No. 6101-01 Serial No. 034497  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: J. BOEHM 6506 Ext. 6506 Refer Questions To: BOEHM BERCOVITZ Ext. \_\_\_\_\_

Job Requested By: (Client) J. BERCOVITZ Ext. 5833

Design Check By: (Engineer Responsible) \_\_\_\_\_ Ext. \_\_\_\_\_

Production Check By: [Signature] Date 8-24-95 Authorized By: [Signature] Date 8/31/95

Job Description: HGC Residual Risks Accepted By: \_\_\_\_\_

RTC

TANK PARTS, S. ST.

DELIVER TO: NAME BOB CONROY Bldg. SHEET METAL Rm. 915 Ext. 15 DUE DATE \_\_\_\_\_

PARTS \_\_\_\_\_ ASSEMBLY \_\_\_\_\_

REFERENCE DISTRIBUTION PRINTS

SEND COPIES TO: Bldg. Rm. J.O. DWGS.

J. BERCOVITZ 70A 3307 1 1

J. BOEHM " " 1 3

WORK DISTRIBUTION							
CRAFT	EST. HRS.	PRINTS J.O.	PRINTS DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	PRINTS DWGS.
MECH. ENG.				MECH. SHOP OFF.	1	2	2
MECH. TECH. OFF.				ASS'Y SHOP			
SHOP 25				MACH. SHOP	24		
SHOP 71				PAINT SHOP			
SHOP				SHEET METAL			
SHOP				WELDING SHOP			
ELECT. ENG.				C&M OFFICE			
COORDINATING				CARPENTERS			
DRAFTING				ELECTRICIANS			
ELECT. FAB.				LABORERS			
ELECT. INSTALL				MAINT. TECHS			
ELECT. MAINT.				PAINTERS			
ELECT. Q.A.				PLUMBERS			
OPER. CHECK							
TECH. SUPP.							
ELEC-MECH. 80				TOTAL HRS	30	AT	65 HR.
SAFETY SHOPS				LABOR	\$	1950	-
SAFETY/ENVIRONMENTAL				MATERIAL	\$	150	-
ANALYSIS				TOTAL	\$	2,100	-
BY: _____				FABRICATION:			
DATE: _____				<input checked="" type="checkbox"/> LBL SHOPS			
PRELIM. _____				<input type="checkbox"/> OUTSIDE SHOPS			
FINAL _____				Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000			

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

PRINT DIVISION  
 MECH ENGR DEPT  
 LBL BERKELEY  
 Aug 24 8 35 AM '95

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME	DESCRIPTION	INSTRUCTIONS
1		24G0103	20	HEATER MOUNT		16
2		24G0113	35	HOSE BARB		8
3		24G0123	30	ADAPTOR, 3/8		6

*Shop to Supply Matl.*

JOB ORDER



# ESTIMATE TOTALS

serial#	print#	supv	helper	INSP	CMM	NC	NCP	SHOP	E	P&E	SM	WELD	NCW	CER	ASSY	CONT	UHVC	PAINT	
034497	24G0103	0	1			14			2										
034497	24G0113	0	1			10													
034497	24G0123	0	1			6													

Total Cost  
(incl Helper  
& Cont)

NC hrs	NC Cost	UHVC Hrs	UHVC Cost	Non NC & Dept 4 hrs	Non NC & Dept 4 Cost
30	\$1,611.00		\$0.00	5	\$238.50

**\$1,849.50**



ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 8/21/95 Account No. 8052-24 Serial No. 334492  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: J. Boehm 6506 Ext. 6506 Refer Questions To: Boehm/Bercovitz Ext. \_\_\_\_\_

Job Requested By: (Client) J. Bercovitz Ext. 5833

Design Check By: (Engineer Responsible) \_\_\_\_\_ Ext. \_\_\_\_\_

Production Check By: J. Mehren Date 8/21/95 Authorized By: Thomell Wall Date 8/21/95

Job Description: STAR Residual Risks Accepted By: \_\_\_\_\_

SECTOR

MANIFOLD PARTS PREP & PRIME

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	<u>J. WIRTH</u>	<u>77</u>	<u>Asy</u>	<u>5901</u>	<u>11/1/95</u>
ASSEMBLY					

REFERENCE DISTRIBUTION			PRINTS	
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.
<u>R. WELLS</u>	<u>70A</u>	<u>3307</u>	<u>1</u>	<u>—</u>
<u>J. Bercovitz</u>	<u>11</u>	<u>4</u>	<u>1</u>	<u>—</u>
<u>J. Boehm</u>	<u>4</u>	<u>9</u>	<u>1</u>	<u>—</u>
<u>J. WIRTH</u>	<u>11</u>	<u>4</u>	<u>1</u>	<u>—</u>
<u>J. MEHREN</u>	<u>90</u>	<u>2114</u>	<u>1</u>	<u>1</u>
<u>R. BALL</u>	<u>90</u>	<u>201</u>	<u>1</u>	<u>6</u>

WORK DISTRIBUTION							
CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	DWGS.
MECH. ENG.				MECH. SHOP OFF.			
MECH. TECH. OFF.				ASS'Y SHOP			
SHOP 25				MACH. SHOP			
SHOP 71				PAINT SHOP			
SHOP				SHEET METAL			
SHOP				WELDING SHOP			
ELECT. ENG.				C&M OFFICE			
COORDINATING				CARPENTERS			
DRAFTING				ELECTRICIANS			
ELECT. FAB.				LABORERS			
ELECT. INSTALL				MAINT. TECHS			
ELECT. MAINT.				PAINTERS			
ELECT. Q.A.				PLUMBERS			
OPER. CHECK							
TECH. SUPP.				TOTAL HRS	AT	HR.	
ELEC-MECH. 80				LABOR	\$		
SAFETY SHOPS				MATERIAL	\$		
SAFETY/ENVIRONMENTAL				TOTAL	\$		
ANALYSIS				FABRICATION:			
BY: _____				<input type="checkbox"/> LBL SHOPS <input checked="" type="checkbox"/> OUTSIDE SHOPS Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000			
PRELIM. _____	DATE: _____						
FINAL _____							

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

PRINT DIVISION  
 MECH ENGR DEPT  
 B.L. BERKELEY  
 Aug 25 9 09 AM '95  
 Reg. 60281

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME	DESCRIPTION	INSTRUCTIONS
1		24A4624	30	INSECT HDR	BRAZE ASSY, L	PREP & PRIME PER NOTE 5
2		24A4634	30	"	" " " " , R	
3		24A405AA	30	OSECT	" " " " , L	
4		24A4154A	30	"	" " " " , R	
5		24A4644A	30	INSECT TUBE #1	MACHINING	MASK & PREP & PRIME PER NOTE 5
6		24A4654A	30	"	" #2	
7		24A4664A	30	"	" #3	
8		24A4674A	30	"	" #4	
9		24A4684A	30	"	" #5	
10		24A4694A	30	"	" #6	
11		24A4704A	30	"	" #7	

JOB ORDER



STAR-SECTORS - MANIFOLD PARTS PREP & PRIME 8052-24						ACCOUNT NO.	SERIAL NO.
ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME	DESCRIPTION	INSTRUCTIONS	
12		24A4714A	30	INSECT TUBE #8	MACHINING	MASK & PRIME PER NOTE 2	
13		24A4724A		"	" #9		
14		24A4734A		"	" #10		
15		24A4744A		"	" #11		
16		24A4754A		"	" #12		
17		24A4764A		"	" #13		
18		24A4774A		"	" #14		
19		24A4784		"	" #15		
<hr/>							
20		24A4306A		INSECT TUBE #1	MACHINING	MASK & PRIME PER NOTE 2 ON THE DWS	
21		24A4316A		"	" #2		
22		24A4326A		"	" #3		
23		24A4336A		"	" #4		
24		24A4346A		"	" #5		
25		24A4356A		"	" #6		
26		24A4366A		"	" #7		
27		24A4374A		"	" #8		
28		24A4384A		"	" #9		
29		24A4394A		"	" #10		
30		24A4404A		"	" #11		
31		24A4414A		"	" #12		
32		24A4424A		"	" #13		
33		24A4434A		"	" #14		
34		24A4444A		"	" #15		
35		24A4454A	30	"	" #16		
<hr/>							
SEE ATTACHED LIST OF VENDORS							
ESTIMATED COST \$38k							

Cooling Mani Parts Cost ESTIMATE (SHOP)

8/21/25 

24

J.O. # 34294	\$9,033.08
J.O. # 34295	\$9,033.08
J.O. # 34364	\$27,775.40
J.O. # 34323	\$9,247.88
J.O. # 34322	\$9,313.43
J.O. # 34376	\$18,109.40
	\$82,512.27

05ECT HDR PRTS, RIGHT  
 " " " , LEFT  
 TUBES  
 INSECT HDR PRTS, RIGHT  
 05ECT HDR PRTS, LEFT  
 INSECT TUBES





3745 25th AVENUE • SCHILLER PARK, IL 60176  
(708) 928-1500 FAX: (708) 928-2509

Date 8/15/95  
Page 1 of 1

Terms NET

24

# PAST DUE

**Bill-To Customer**

LAWRENCE BERKLEY LAB  
1 CYCLETRON  
BLDG 77/125  
BERKLEY, CA 94705

**Account**  
022385

A service charge equivalent to 1½ % per month (18% per annum) will be added to all invoices past 30 days.

**BALANCE DUE:** 489.60

Return bottom part with your check payable to: **BELLAIR EXPRESS**

Date	Invoice	Interest	1-30 Days	31-60 Days	61-90 Days	120 +
5/12/95	2165	7.34				489.60



ACCT NO.	022385	Interest	1-30 Days	31-60 Days	61-90 Days	120 +
		7.34				489.60

**OUR PAYMENTS ARE NET 10 DAYS. THE ABOVE INVOICES ARE OVER 30 DAYS OLD. IF PAYMENT HAS ALREADY BEEN MADE PLEASE DISREGARD THIS PAST DUE.**

# St. Paul

A UNIT OF BMC INDUSTRIES, INC.

245 East 6th Street 6th Floor  
 St. Paul, MN 55101-1918  
 612/228-6400 Fax 612/228-6572

INVOICE DATE

08/09/95

\*\*\* PLEASE REMIT TO ADDRESS AT BOTTOM OF INVOICE \*\*\*

## INVOICE

BILL TO:	1607 00	SHIP TO:	1607 01
	UNIV OF CA/LAWRENCE BERKELEY LAB		UCLBL/USDOE
	PO BOX 528		2700 7TH ST
	BERKLEY CA 94701		BERKLEY CA 94710

24

ATTN:LINDARAE AUBERT

SHIP DATE	DEFENSE	P.O. NUMBER	SHIP VIA	
08/04/95		3847702	WAYBILL	BILLING ONLY

TEM	QUANTITY SHIPPED	UM	DESCRIPTION	UNIT PRICE	EXTENSION
01	1	EA	\ELECTRICAL TEST FIXTURE REV.	3,000.0000	3,000.00
			BMC PACKING SLIP#: 3610		
02	1	EA	\ELECTRICAL TESTING REV.	1,400.0000	1,400.00
			BMC PACKING SLIP#: 3610		
03	1	EA	*24A1044 LAYER 1 LBL NEG 12180-57 REV.	3,237.0000	3,237.00
			BMC PACKING SLIP#: 3610		
04	1	EA	\DRILL & ROUT TAPE REV.	500.0000	500.00
			BMC PACKING SLIP#: 3610		
05	1	EA	\ELECTRICAL TEST FIXTURE REV.	3,000.0000	3,000.00
			BMC PACKING SLIP#: 3610		
				ITEM SUBTOTAL:	11,137.00
				ADDL.CHG. SUBTOTAL:	

RECEIVED  
 LBL  
 ACCOUNTS PAYABLE  
 AUG 15 95 9:36 AM

DEPT.	SALESPERSON	MONTALBANO & ASSC.	BMC NUMBER	PLEASE PAY
48	1977 - 005 - 32 - OK		238859	11,137.00

***** REMIT TO INFORMATION ***** MAILING YOUR PAYMENT - ----- BUCKBEE MEARS ST. PAUL A UNIT OF BMC INDUSTRIES, INC. PO BOX 73765 CHICAGO IL 60673-7765	***** DIRECT WIRE TRANSFERS ***** ----- BMC INDUSTRIES, INC. C/O BUCKBEE MEARS ST. PAUL FIRST NATIONAL BANK OF CHICAGO ACCOUNT #59-49599 BANK ROUTING #071000013
--	--

ORIGINAL INVOICE

*Signed 9/11/95*

FORM CONTROL NO. 122069



ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 8/3/95 Account No. 8052-24 Serial No. 034449  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: Ext. R. LEWIS 5165 Refer Questions To: Ext. SAME OR J. WIRTH  
 Job Requested By: (Client) Ext. R. WELLS 7925  
 Design Check By: (Engineer Responsible) Ext. J. WIRTH 5401  
 Production Check By: Date 8/11/95 Authorized By: Date 8-11  
 Job Description: Residual Risks Accepted  
 By:

CRAFT		EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	DWGS.
MECH. ENG.					MECH. SHOP OFF.			
MECH. TECH. OFF.					ASS'Y SHOP			
SHOP 25					MACH. SHOP	40	2	2
SHOP 71					PAINT SHOP			
SHOP					SHEET METAL			
SHOP					WELDING SHOP			

TOOLING FOR  
 INNER PADRANE

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	J. WIRTH	77			8/18/95
ASSEMBLY					

ELECT. ENG.	C&M OFFICE
COORDINATING	CARPENTERS
DRAFTING	ELECTRICIANS
ELECT. FAB.	LABORERS
ELECT. INSTALL	MAINT. TECHS
ELECT. MAINT.	PAINTERS
ELECT. Q.A.	PLUMBERS
OPER. CHECK	

REFERENCE DISTRIBUTION		PRINTS		
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.
J. WIRTH	77	ASBY	1	1
R. WELLS	70A	3307	1	1
R. LEWIS	70A	3307	1	1

TECH. SUPP.					TOTAL HRS 40 AT HR.
ELEC-MECH. 80					LABOR \$
					MATERIAL \$ 100-
					TOTAL \$
SAFETY SHOPS					
SAFETY/ENVIRONMENTAL					FABRICATION:
ANALYSIS					<input type="checkbox"/> LBL SHOPS
BY:					<input type="checkbox"/> OUTSIDE SHOPS
DATE:					Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000
PRELIM.					
FINAL					

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

JOB ORDER

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME - DESCRIPTION - INSTRUCTIONS
1		24A7906	1	CONNECTOR FIXTURE FOR I.S.
2		24A7916	1	BASE PLATE.
3		24A7923	1	CALIBRATION FIXTURE
4		24A7934	1	FIXTURE BASE.

PRINT DIVISION  
 MECH ENGR DEPT  
 LBL BERKELEY  
 Aug 11 8 52 AM '95



ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 8/2/95 Account No. 8052-24 Serial No. 334429  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: J. Boehm Ext. 6506 Refer Questions To: Boehm/Berovits Ext. \_\_\_\_\_  
 Job Requested By: (Client) J. Berovits Ext. 5833  
 Design Check By: (Engineer Responsible) \_\_\_\_\_ Ext. 8/3/95  
 Production Check By: J.R. Mehren Date 8/3/95 Authorized By: W. By Date 8/2/95  
 Job Description: STAR Residual Risks Accepted By: \_\_\_\_\_

WORK DISTRIBUTION							
CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	DWGS.
MECH. ENG.				MECH. SHOP OFF.			
MECH. TECH. OFF.				ASS'Y SHOP			
SHOP 25				MACH. SHOP			
SHOP 71				PAINT SHOP			
SHOP				SHEET METAL			
SHOP				WELDING SHOP			
ELECT. ENG.				C&M OFFICE			
COORDINATING				CARPENTERS			
DRAFTING				ELECTRICIANS			
ELECT. FAB.				LABORERS			
ELECT. INSTALL				MAINT. TECHS			
ELECT. MAINT.				PAINTERS			
ELECT. Q.A.				PLUMBERS			
OPER. CHECK							
TECH. SUPP.				TOTAL HRS	AT	HR.	
ELEC-MECH. 80				LABOR	\$		
				MATERIAL	\$		
SAFETY SHOPS				TOTAL	\$	12,000	
SAFETY/ENVIRONMENTAL				FABRICATION:			
ANALYSIS				<input type="checkbox"/> LBL SHOPS			
BY: _____				<input checked="" type="checkbox"/> OUTSIDE SHOPS			
PRELIM. _____				Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000			
FINAL _____							

Sector HDR MANIFOLDS  
MANIFOLD HEADER BRAZE

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	<u>J. WIRTH</u>	<u>77</u>	<u>Assy</u>	<u>590</u>	<u>10/6/95</u>
ASSEMBLY	<u>11</u>	<u>11</u>	<u>11</u>	<u>11</u>	

REFERENCE DISTRIBUTION			PRINTS		
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.	
<u>R. Wells</u>	<u>70A</u>	<u>3307</u>	<u>1</u>	<u>-</u>	
<u>J. Berovits</u>	<u>11</u>	<u>"</u>	<u>1</u>	<u>-</u>	
<u>J. Boehm</u>	<u>11</u>	<u>11</u>	<u>1</u>	<u>1</u>	
<u>J. Wirth</u>	<u>77</u>	<u>Assy</u>	<u>1</u>	<u>1</u>	
<u>J. Mehren</u>	<u>90</u>	<u>2114</u>	<u>1</u>	<u>4</u>	

JOB ORDER

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Reg # 602435

PRINT DIVISION  
MECH ENGR DEP  
LBL, BERKELEY  
3 10 14 AM '95

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME	DESCRIPTION	INSTRUCTIONS
1		24A4624	30	INSECT HDR BRAZE ASSY,	LEFT	
2		24A4634	30	" " " "	RIGHT	
3		24A4054A	30	OSECT " " "	LEFT	
4		24A 4154A	30	" " " "	RIGHT	

FABRICATION: Estimated cost \$100 per unit  
 (2 prototype Readers were brazed by the manufacturer, P.O# 75796A2, dated 3/9/94, for \$150 per unit)  
 PARTS READY FOR DELIVERY TO VENDOR 28-AUG-95  
 See enclosed list of suggested Vendor  
 NOTE: BRAZE VENDOR NOT TO BE RESPONSIBLE FOR NOTE 5 ON DRAWINGS, (i.e. PREP & PRIME FOR BONDING)



ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 8/1/95 Account No. 8052-24 Serial No. 034428  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: J. Boehm 6506 Ext. Boehm/Berarity Refer Questions To: Boehm/Berarity Ext. 5388  
 Job Requested By: (Client) J. Berarity Ext. 5388  
 Design Check By: (Engineer Responsible) \_\_\_\_\_ Ext. \_\_\_\_\_

Production Check By: J. Boehm Date 8-1-95 Authorized By: J. Boehm Date \_\_\_\_\_  
 Job Description: STAR Residual Risks Accepted \_\_\_\_\_  
 By: \_\_\_\_\_

SECTOR  
FEE BRACKET  
 DELIVER TO: NAME J. BOEHM Bldg. will pickup Rm. 8/18/95 Ext. at inspection DUE DATE  
 PARTS \_\_\_\_\_ ASSEMBLY \_\_\_\_\_

REFERENCE DISTRIBUTION		PRINTS			
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.	
<u>P. Wells</u>	<u>70A3307</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
<u>J. Berarity</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>1</u>	<u>1</u>
<u>J. Boehm</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>1</u>	<u>1</u>

WORK DISTRIBUTION							
CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	DWGS.
MECH. ENG.				MECH. SHOP OFF.	<u>1</u>	<u>2</u>	<u>2</u>
MECH. TECH. OFF.				ASS'Y SHOP			
SHOP 25				MACH. SHOP	<u>8</u>		
SHOP 71				PAINT SHOP			
SHOP				SHEET METAL			
SHOP				WELDING SHOP			
ELECT. ENG.				C&M OFFICE			
COORDINATING				CARPENTERS			
DRAFTING				ELECTRICIANS			
ELECT. FAB.				LABORERS			
ELECT. INSTALL				MAINT. TECHS			
ELECT. MAINT.				PAINTERS			
ELECT. Q.A.				PLUMBERS			
OPER. CHECK							
TECH. SUPP.							
ELEC-MECH. 80							
SAFETY SHOPS				TOTAL HRS <u>9</u> AT <u>65</u> HR.			
SAFETY/ENVIRONMENTAL				LABOR \$ <u>585.-</u>			
ANALYSIS				MATERIAL \$ _____			
BY: _____ DATE: _____				TOTAL \$ <u>585.-</u>			
PRELIM. _____				FABRICATION:			
FINAL _____				<input checked="" type="checkbox"/> LBL SHOPS <input type="checkbox"/> OUTSIDE SHOPS Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000			

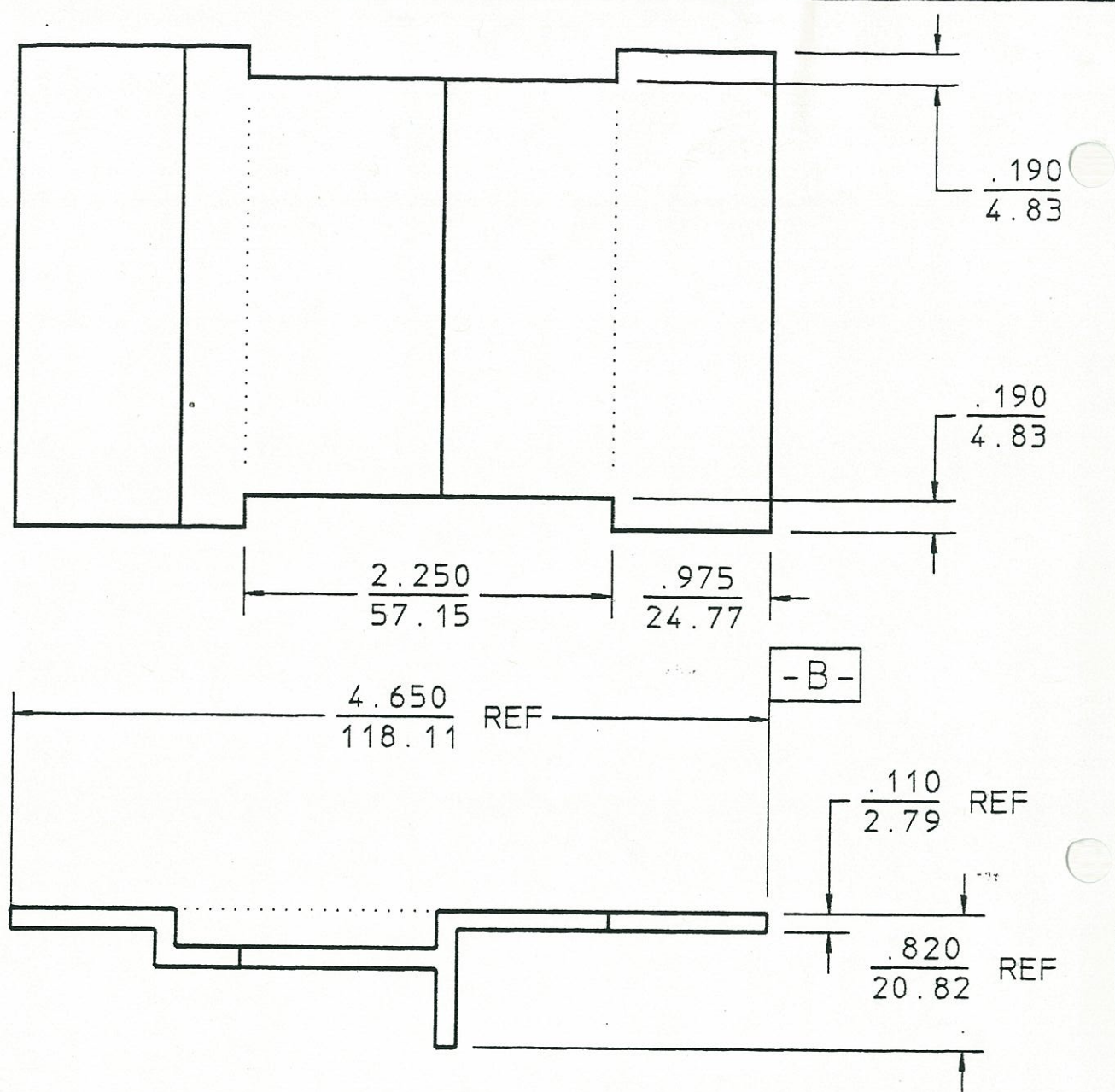
JOB ORDER

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PRINT DIVISION  
 MECH ENGR DEPT  
 LBL SERVICE  
 AUG 23 23 PM '95

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUAN-TITY	NAME	DESCRIPTION	INSTRUCTIONS
<u>1</u>		<u>24AG552</u>	<u>30ea</u>	<u>FEE Bracket</u>		
		<u>Matl: FEE Bracket extrusion, dwg #24AG542 will be supplied by STAR group:</u>				
		<u>P.O.# 6407274</u>				

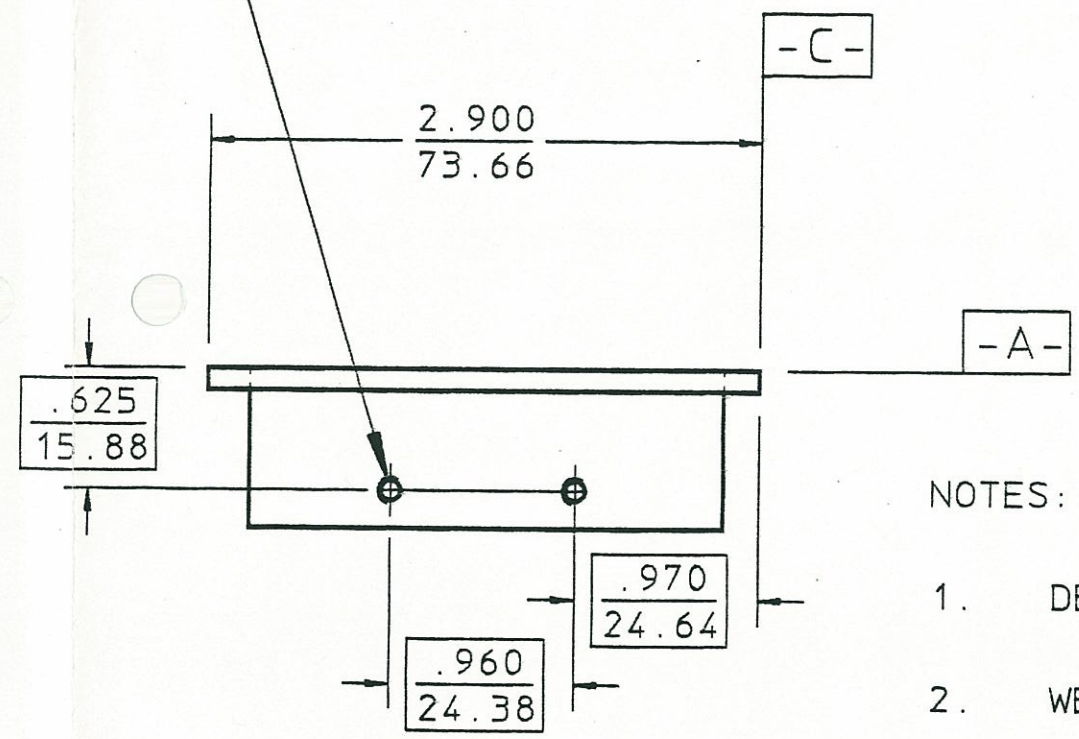




ITEM	REQ	PART NUMBER	DESCRIPTION
		24A6542	FEE BRACKET EXTRUSION II

2 x #31( $\emptyset$ .120) THRU (SPECIAL TAP DRILL SIZE FOR CAPTURED SCREW)  
 #6( $\emptyset$ .138)-32UNC-2B TAP THRU

$\emptyset$  0.010 A B C



- NOTES:
1. DEBURR ALL EDGES
  2. WEIGHT: 0.19 lbs

WBS # 0.00.0	Production Approval: Cognizant Engineer: J BERCOVITZ	STAR DRAWING NUMBER TPC424-B-1	REV. A	RHIC DRAWING NUMBER XXXXXXXXXX	REV.
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REV.	DWN.	CHK.	DATE	CHANGES

UNLESS OTHERWISE SPECIFIED		SHOP ORDERS	
ALL DIMENSIONS ARE $\frac{\text{INCHES}}{\text{CENTIMETERS}}$		ACCT. NO.	SER. NO.
.X/.X = $\pm 0.06/15$		DATE ISS'D	DATE REQ'D
.XX/.X = $\pm 0.02/0.05$		DELIVER TO:	NO. REQ'D
0.XXX/.XX = $\pm 0.005/01$		SURFACE TREATMENT	DEGREASE
SAWED, FLAMECUT, SHEARED OR STOCK FINISH		IDENTIFICATION METHOD	BOX & TAG
ALL SCREW THREADS ARE ISO METRIC CLASS		DRWN BY	EHM
BREAK EDGES .020/.05 MAX ON MACHINE WORK		CHECK BY	
REFERENCE - ANSI Y14.5 & B46.1		DATE	95/08/01

LAWRENCE BERKELEY LABORATORY			
UNIVERSITY OF CALIFORNIA - BERKELEY			
RHIC-STAR-TPC			
SECTOR COOLING MANIFOLD			
FEE BRACKET II			
PATENT CLEAR	DRAWING TYPE	SHOWN ON	SCALE: FULL
MICROFILMED	DETAIL	00X0000	DO NOT SCALE PRINTS
DESIGN ACCOUNT	CATEGORY CODE	LBL DRAWING NUMBER	REV.
8052-24	SR-02-04	24A6552	-



ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 7/22/95 Account No. 8052-24 Serial No. 034364  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: J. Boehm Ext. 506 Refer Questions To: J. Boehm/Bercovitz Ext. \_\_\_\_\_  
 Job Requested By: (Client) J. Bercovitz Ext. 5833  
 Design Check By: (Engineer Responsible) \_\_\_\_\_ Ext. \_\_\_\_\_

Production Check By: \_\_\_\_\_ Date 6/23/95 Authorized By: J. Wang Date JUNE 21  
 Job Description: STAR Residual Risks Accepted 75  
 By: \_\_\_\_\_

OUTER SECTOR MANIFOLD  
TUBE MACHINING  
 DELIVER TO: NAME J. WIRTH Bldg. 77 Rm. Assy Ext. 590 DUE DATE 8/1/95  
 PARTS \_\_\_\_\_ ASSEMBLY \_\_\_\_\_

WORK DISTRIBUTION							
CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	DWGS.
MECH. ENG.				MECH. SHOP OFF.	1	2	2
MECH. TECH. OFF.				ASS'Y SHOP			
SHOP 25				MACH. SHOP	250		
SHOP 71				PAINT SHOP			
SHOP				SHEET METAL			
SHOP				WELDING SHOP			
				NC	40		
ELECT. ENG.				C&M OFFICE			
COORDINATING				CARPENTERS			
DRAFTING				ELECTRICIANS			
ELECT. FAB.				LABORERS			
ELECT. INSTALL				MAINT. TECHS			
ELECT. MAINT.				PAINTERS			
ELECT. Q.A.				PLUMBERS			
OPER. CHECK							
TECH. SUPP.							
ELEC-MECH. 80				TOTAL HRS	291	AT	CAHR.
				LABOR	\$	18,624.	
				MATERIAL	\$		
				TOTAL	\$	18,624.-	
SAFETY SHOPS				FABRICATION:			
SAFETY/ENVIRONMENTAL				<input checked="" type="checkbox"/> LBL SHOPS <input type="checkbox"/> OUTSIDE SHOPS			
ANALYSIS				Attach completed MAKE/BUY form when Mech. Shop labor exceeds \$1000			
BY: _____				DATE: _____			
_____ PRELIM. _____				_____ FINAL _____			

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INT DIVISION  
 ENGR DEPT  
 BERKELEY  
 7 32 AM '95

JOB ORDER

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME	DESCRIPTION	INSTRUCTIONS
1	✓	24A 4306A	30	TUBE #01	MACHINING	
2	✓	24A 4316A	30	" #02	"	*
3	✓	24A 4326A	30	" #03	"	*
4	✓	24A 4336A	30	" #04	"	*
5	✓	24A 4346A	30	" #05	"	*
6	✓	24A 4356A	30	" #06	"	*
7	✓	24A 4366A	30	" #07	"	*
8	✓	24A 4374A	30	" #08	"	*
9	✓	24A 4384A	30	" #09	"	*
10	✓	24A 4394A	30	" #10	"	*
11	✓	24A 4404A	30	" #11	"	*
12	✓	24A 4414A	30	" #12	"	*



OUTER SECTOR MANIFOLD TUBE MACHINING				ACCOUNT NO.	SERIAL NO.	
ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME	DESCRIPTION	INSTRUCTIONS
13	✓	24A4424A	30	TUBE # 13	MACHINING	*
14	✓	24A4434A	30	TUBE #14	MACHINING	*
15	✓	24A4444A	30	TUBE #15	MACHINING	*
16	-	24A4454A	30	TUBE #16	MACHINING	*
<hr/> <p>*MATERIAL IN FORM OF EXTRUSION WILL BE SUPPLIED BY 'STAR' GROUP. IT'S STORED IN 77A, See JON WIRTH</p> <hr/> <p>Similar J.O.'s #033603, 3 March 94, was for machining only</p> <p>#033684, 4/19/94 was for the drilling &amp; tapping only</p>						



ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 7/29/85 Account No. 8052-24 Serial No. 0034413  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: J. Boehm Ext. 6506 Refer Questions To: Boehm/Berowitz Ext. \_\_\_\_\_  
 Job Requested By: (Client) J. Berowitz Ext. 5833  
 Design Check By: (Engineer Responsible) \_\_\_\_\_ Ext. \_\_\_\_\_

WORK DISTRIBUTION						
CRAFT	EST. HRS.	PRINTS		CRAFT	EST. HRS.	PRINTS
		J.O.	DWGS.			J.O.
MECH. ENG.				MECH. SHOP OFF.	1	2 2
MECH. TECH. OFF.				ASS'Y SHOP		
SHOP 25				MACH. SHOP	8	
SHOP 71				PAINT SHOP		
SHOP				SHEET METAL		
SHOP				WELDING SHOP		
ELECT. ENG.				C&M OFFICE		
COORDINATING				CARPENTERS		
DRAFTING				ELECTRICIANS		
ELECT. FAB.				LABORERS		
ELECT. INSTALL				MAINT. TECHS		
ELECT. MAINT.				PAINTERS		
ELECT. Q.A.				PLUMBERS		
OPER. CHECK						
TECH. SUPP.						
ELEC-MECH. 80						
SAFETY SHOPS				TOTAL HRS	9	AT 65 HR.
SAFETY/ENVIRONMENTAL				LABOR	\$	585
ANALYSIS				MATERIAL	\$	50
BY: _____ DATE: _____				TOTAL	\$	635
PRELIM. _____				FABRICATION:		
FINAL _____				<input checked="" type="checkbox"/> LBL SHOPS <input type="checkbox"/> OUTSIDE SHOPS Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000		

Production Check By: R. Binkhoff Date 9/25/85 Authorized By: (initials) Date 9/30/85  
 Job Description: STAR Residual Risks Accepted \_\_\_\_\_  
 By: \_\_\_\_\_

DELIVER TO: NAME Jack Smith Bldg. 77 Rm. \_\_\_\_\_ Ext. \_\_\_\_\_ DUE DATE \_\_\_\_\_

ASSEMBLY

REFERENCE DISTRIBUTION			PRINTS		
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.	
<u>R. Wells</u>	<u>70A</u>	<u>3307</u>	<u>1</u>	<u>1</u>	
<u>J. Berowitz</u>	<u>70A</u>	<u>11</u>	<u>1</u>	<u>1</u>	
<u>J. Boehm</u>	<u>70A</u>	<u>11</u>	<u>1</u>	<u>1</u>	

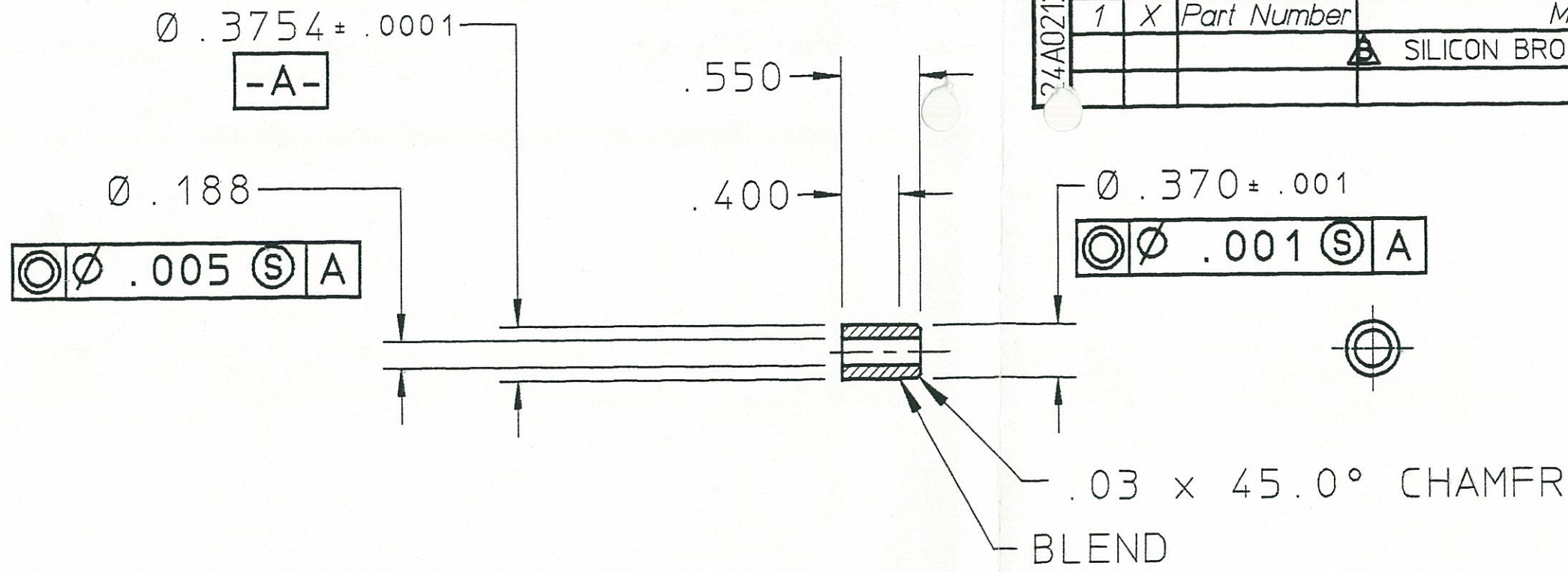
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PRINT DIVISION  
 MECH ENGR DEPT  
 LBL BERKELEY  
 JUL 25 9 34 AM '85

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME	DESCRIPTION	INSTRUCTIONS
1		24A0212C-1	55	Sleeve,	Pinkhole	
2		24A0212C-2	85	Sleeve,	survey	
<p>Shop to furnish Mat'l</p> <p>These sleeves are to be pressed into the Inner Sectors being machined.</p>						

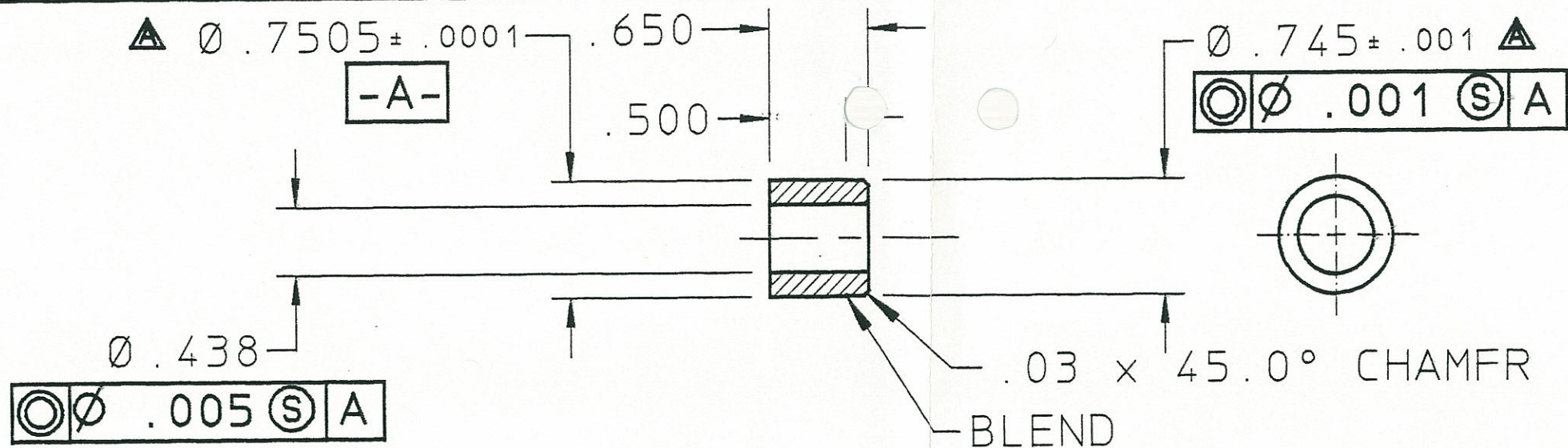
JOB ORDER





ITEM	REQ	PART NUMBER	DESCRIPTION
1	X	Part Number	Material/Parts Call-Out
			▲ SILICON BRONZE TYPE CDA 647 or 655

**PART # 24A0212B-2**



**PART # 24A0212B-1**

WBS # 0.00.0	Production Approval: Cognizant Engineer: J BERCOVITZ	STAR DRAWING NUMBER TPC427-B-1	REV. A	RHC DRAWING NUMBER XXXXXXXXXX	REV.
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UNLESS OTHERWISE SPECIFIED				SHOP ORDERS		LAWRENCE BERKELEY LABORATORY			
ALL DIMENSIONS ARE INCHES / CENTIMETERS				ACCT. NO.	SER. NO.	UNIVERSITY OF CALIFORNIA - BERKELEY			
.X/.X = ±.06/.15		ANGLES ±.5°		DATE ISS'D	DATE REQ'D	NO. REQ'D		RHIC-STAR-TPC	
.XX/.X = ±0.02/0.05		FINISH 125/.32		DELIVER TO:		OUTER AND INNER SECTOR STRONGBACK SLEEVE			
0.XXX/.XX = ±.005/.01				SURFACE TREATMENT		DEGREASE			
SAWED, FLAMECUT, SHEARED OR STOCK FINISH				IDENTIFICATION METHOD		BAG & TAG		PATENT CLEAR	
ALL SCREW THREADS ARE ISO METRIC CL				DRAWN BY		30EHM		DRAWING TYPE	
BREAK EDGES .020/.05 MAX ON MACHINE				CHECK BY				DETAIL	
REFERENCE - ANSI Y14.5 & B46.1				DATE		95/07/27		SHOWN ON	
				DATE				00X0000	
								SCALE: FULL	
								DO NOT SCALE PRINTS	
								LBL DRAWING NUMBER	
								24A0212	
								REV. C	
REV.	DWN.	CHK.	DATE	CHANGES					

REV.	DWN.	CHK.	DATE	CHANGES
C		JB	940408	Ø.188was.2502±.0002, Ø.438was.5002±.0002
B		JB	940310	MATERIALwasCRS304N, ADDED CONCENTRICITY
A		JB	931004	Ø.7505wasØ.6255, Ø.745wasØ.620



CHANGE ORDER

MAKE/BUY NO. \_\_\_\_\_

ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  DATE 7/17/95 ACCOUNT NO. 8052-24 SERIAL NO. 034322-  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: J. Boehm Ext. 6506 Refer Questions To: Boehm/Bercovitz Ext. \_\_\_\_\_  
 Job Requested By: (Client) J. Bercovitz Ext. 5833  
 Design Check By: (Engineer) Responsible \_\_\_\_\_ Ext. \_\_\_\_\_  
 Production Check By: \_\_\_\_\_ Date 7-17-95 Authorized By: Hilberg Date JUL 17, 95  
 Job Description: STAR Residual Risks Accepted By: \_\_\_\_\_

WORK DISTRIBUTION			COST ESTIMATE CHANGES	
CRAFT: LIST ONLY THOSE INVOLVED	EST HRS FOR THIS CHANGE	PRINTS C.O. DWGS	TOTAL HRS. _____ AT _____/HR.	
C&M OFFICE			THIS CHANGE ONLY	Labor \$ _____
ELEC. SHOPS OFF.				Material \$ _____
MECH SHOPS OFF.				Sub-Total \$ _____
MECH. TECH. OFF.				PREVIOUS TOTAL \$ _____
				NEW TOTAL \$ _____

INNER SECTOR MANIFOLD  
HEADER PARTS, LEFT

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	<u>J. WIRTH</u>	<u>77</u>	<u>ASSY</u>	<u>590</u>	<u>8/25/95</u>
ASSEMBLY					

SAFETY/ENVIRONMENTAL ANALYSIS BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PRELIM \_\_\_\_\_  
 FINAL \_\_\_\_\_  
 FABRICATION:  LBL SHOPS  OUTSIDE SHOPS  
 Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000

REFERENCE DISTRIBUTION			PRINTS		
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.	
<u>R. WELLS</u>	<u>70A</u>	<u>3207</u>	<u>1</u>	<u>-</u>	
<u>J. BERCOVITZ</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>-</u>	
<u>J. BOEHM</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>1</u>	
<u>J. WIRTH</u>	<u>77</u>	<u>ASSY</u>	<u>1</u>	<u>1</u>	

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CHANGE ORDER

ITEM NO.	SHOP USE	PRECEDING ORDER		THIS ORDER		NAME - DESCRIPTION - INSTRUCTIONS
		DRAWING OR PART NUMBER	QUANTITY			
<u>1</u>		<u>24A4816</u>	<u>30</u>	<u>NO CHANGE</u>	<u>M/C</u>	<u>LOW. HDR, LEFT</u>
<u>2</u>		<u>24A4824</u>	<u>30</u>	<u>NO CHANGE</u>	<u>M/C</u>	<u>UPP. HDR, LEFT</u>
<u>3</u>		<u>24A4833</u>	<u>30</u>	<u>NO CHANGE</u>	<u>M/C</u>	<u>HDR. PRT. LEFT</u>
<u>4</u>		<u>24A4843</u>	<u>30</u>	<u>24A 4843A</u>	<u>30</u>	<u>DRAIN PORT</u>

PRINT DIVISION  
 MECH ENGR DEPT  
 LBL BERKELEY  
 JUL 17 3 51 PM '95

DESCRIPTION OF AND REASON FOR CHANGE  
Added 4-40 threaded holes for ground screws to item (4)



CHANGE ORDER

MAKE/BUY NO. \_\_\_\_\_

PAGE 1 OF 1

ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  DATE 7/17/95 ACCOUNT NO. 8052-24 SERIAL NO. 034323-1  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: J. Rodin Ext. 6506 Refer Questions To: J. Bercovitz Ext. 5833  
 Job Requested By: (Client) J. Bercovitz Ext. 5833  
 Design Check By: (Engineer Responsible) \_\_\_\_\_ Ext. \_\_\_\_\_  
 Production Check By: J. Rodin Date 7-17-95 Authorized By: J. M. [Signature] Date JUL 17, 95  
 Job Description: STAR Residual Risks Accepted By: \_\_\_\_\_

WORK DISTRIBUTION				COST ESTIMATE CHANGES	
CRAFT: LIST ONLY THOSE INVOLVED	EST HRS FOR THIS CHANGE	PRINTS C.O. DWGS		TOTAL HRS. _____ AT _____/HR.	
C&M OFFICE				THIS CHANGE ONLY	Labor \$ _____
ELEC. SHOPS OFF.			Material \$ _____		
MECH SHOPS OFF.			Sub-Total \$ _____		
MECH. TECH. OFF.			PREVIOUS TOTAL \$ _____		
				NEW TOTAL \$ _____	

INNER SECTOR MANIFOLD  
HEADER PARTS, RIGHT

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	<u>J. WIRTH</u>	<u>77</u>	<u>ASSY 5901</u>		<u>8/25/95</u>
ASSEMBLY					

SAFETY/ENVIRONMENTAL ANALYSIS BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PRELIM \_\_\_\_\_  
 FINAL \_\_\_\_\_  
 FABRICATION:  LBL SHOPS  OUTSIDE SHOPS  
 Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000

REFERENCE DISTRIBUTION			PRINTS		
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.	
<u>J. WELLS</u>	<u>77A</u>	<u>3307</u>	<u>1</u>	<u>-</u>	
<u>J. BERCOVITZ</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>-</u>	
<u>J. BOEHM</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>1</u>	
<u>J. WIRTH</u>	<u>77</u>	<u>ASSY</u>	<u>1</u>	<u>1</u>	

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

CHANGE ORDER

ITEM NO.	SHOP USE	PRECEDING ORDER		THIS ORDER		NAME - DESCRIPTION - INSTRUCTIONS
		DRAWING OR PART NUMBER	QUAN-TITY			
<u>1</u>		<u>24A4856</u>	<u>30</u>	<u>NO CHANGE</u>	<u>N/C</u>	<u>LWR HDR, RIGHT</u>
<u>2</u>		<u>24A 4864</u>	<u>30</u>	<u>NO CHANGE</u>	<u>N/C</u>	<u>UPP HDR, RIGHT</u>
<u>3</u>		<u>24A 4873</u>	<u>30</u>	<u>NO CHANGE</u>	<u>N/C</u>	<u>HDR PRT, RIGHT</u>
<u>4</u>		<u>24A 4883</u>	<u>30</u>	<u>24A4883A</u>	<u>30</u>	<u>DRAIN PORT, RIGHT</u>

PRINT DIVISION  
 MECH ENGR DEPT  
 LBL BERKELEY  
 JUL 17 3 53 PM '95

DESCRIPTION OF AND REASON FOR CHANGE  
ADDED 4-40 threaded hole for ground screw to item 4



ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date \_\_\_\_\_  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Account No. 8052-24 Serial No. 334334

Ordered By: J. Boehm Ext. 6506 Refer Questions To: Boehm/Bercovitz Ext. \_\_\_\_\_  
 Job Requested By: (Client) J. BERCOVITZ Ext. 5833  
 Design Check By: (Engineer Responsible) \_\_\_\_\_ Ext. \_\_\_\_\_

Production Check By: J. Boehm Date 5-31-95 Authorized By: [Signature] Date MAY 30,  
 Job Description: STAR Residual Risks Accepted 1995  
 By: \_\_\_\_\_

WORK DISTRIBUTION

CRAFT	EST. HRS.	PRINTS J.O.   DWGS.	CRAFT	EST. HRS.	PRINTS J.O.   DWGS.
MECH. ENG.			MECH. SHOP OFF.		
MECH. TECH. OFF.			ASS'Y SHOP		
SHOP 25			MACH. SHOP		
SHOP 71			PAINT SHOP		
SHOP			SHEET METAL		
SHOP			WELDING SHOP		
ELECT. ENG.			C&M OFFICE		
COORDINATING			CARPENTERS		
DRAFTING			ELECTRICIANS		
ELECT. FAB.			LABORERS		
ELECT. INSTALL			MAINT. TECHS		
ELECT. MAINT.			PAINTERS		
ELECT. Q.A.			PLUMBERS		
OPER. CHECK					
TECH. SUPP.			TOTAL HRS	AT	HR.
ELEC-MECH. 80			LABOR	\$	
			MATERIAL	\$	
			TOTAL	\$	
SAFETY SHOPS			FABRICATION:		
SAFETY/ENVIRONMENTAL			<input type="checkbox"/> LBL SHOPS		
ANALYSIS			<input checked="" type="checkbox"/> OUTSIDE SHOPS		
BY: _____			DATE: _____		
PRELIM. _____			Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000		
FINAL _____					

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	J. WIRTH	77A	NORTH	5901	7/2/95
ASSEMBLY					

SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.
R. WELLS	70A	3307	1	1
J. BERCOVITZ	"	"	1	1
J. BOEHM	"	"	1	1
J. WIRTH	77	150	1	1
R. BALL	69	201	1	1

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

JOB ORDER

Req. 601502

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUAN-TITY	NAME	DESCRIPTION	INSTRUCTIONS
1		2AAG542	1/500		FEE BRACKET EXTRUSION	
						RFQ: Estimated Cost: \$2,500.—
						SUGGESTED VENDOR LIST:
						1.) SUPERIOR METAL SHAPES, INC
						2.) AMALCO METALS INC
						3.) RYERSON STEEL

PRINT DIVISION  
 MECH ENGR DEPT  
 LBL, BERKELEY  
 MAY 31 10 45 AM '95



# CHANGE ORDER

MAKE/BUY NO. \_\_\_\_\_

ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  DATE 7/18/95 ACCOUNT NO. 8052-24 SERIAL NO. 034376-1  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: J. Rodin 6506 Ext. Refer Questions To: J. Rodin 11. Beronitz Ext.  
 Job Requested By: (Client) J. Beronitz Ext. 5833  
 Design Check By: (Engineer Responsible) \_\_\_\_\_ Ext.

WORK DISTRIBUTION			COST ESTIMATE CHANGES	
CRAFT: LIST ONLY THOSE INVOLVED	EST HRS FOR THIS CHANGE	PRINTS C.O. DWGS	TOTAL HRS. _____	AT _____/HR.
C&M OFFICE			THIS CHANGE ONLY	Labor \$ _____
ELEC. SHOPS OFF.				Material \$ _____
MECH SHOPS OFF.				Sub-Total \$ _____
MECH. TECH. OFF.				PREVIOUS TOTAL \$ _____
				NEW TOTAL \$ _____

Production Check By: \_\_\_\_\_ Date 7-19-95 Authorized By: J. Rodin Date JUL 18, 95  
 Residual Risks Accepted By: \_\_\_\_\_

Job Description: STAR  
INNER SECTOR MANIFOLD  
TUBE MACHINING

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	<u>J. WIRTH</u>	<u>77</u>	<u>ASSY</u>	<u>509</u>	<u>8/3/95</u>
ASSEMBLY					

SAFETY/ENVIRONMENTAL ANALYSIS BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PRELIM. \_\_\_\_\_  
 FINAL \_\_\_\_\_

FABRICATION:  LBL SHOPS  OUTSIDE SHOPS  
 Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000

REFERENCE DISTRIBUTION		PRINTS		
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.
<u>R. WELLS</u>	<u>70A</u>	<u>3307</u>	<u>1</u>	<u>-</u>
<u>J. BERCOVITZ</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>-</u>
<u>J. BOEHM</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>1</u>
<u>J. WIRTH</u>	<u>77</u>	<u>ASSY</u>	<u>1</u>	<u>1</u>

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

PRINT DIVISION  
 MECH ENGR DEPT  
 LBL BERKELEY  
 JUL 18 1 24 PM '95

ITEM NO.	SHOP USE	PRECEDING ORDER		THIS ORDER		NAME - DESCRIPTION - INSTRUCTIONS
		DRAWING OR PART NUMBER	QUAN-TITY			
1		24A4644	30	24A4644A	30	TUBE#01 MACHINING
2		24A4654	30	24A4654A	30	" #02 "
3		24A4664	30	24A4664A	30	" #03 "
4		24A4674	30	24A4674A	30	" #04 "
5		24A4684	30	24A4684A	30	" #05 "
6		24A4694	30	24A4694A	30	" #06 "
7		24A4704	30	24A4704A	30	" #07 "
8		24A4714	30	24A4714A	30	" #08 "
9		24A4724	30	24A4724A	30	" #09 "
10		24A4734	30	24A4734A	30	" #10 "

DESCRIPTION OF AND REASON FOR CHANGE

added 2 ea 6-32 tapped hole for grounding screw

CHANGE ORDER



CHANGE ORDER

MAKE/BUY NO. \_\_\_\_\_

ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  DATE 7/18/95 ACCOUNT NO. 8052-24 SERIAL NO. 034376-1  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: J. Bodin Ext. 6506 Refer Questions To: Bodin Ext. Bercowitz  
 Job Requested By: (Client) J. Bercowitz Ext. 5833  
 Design Check By: (Engineer Responsible) \_\_\_\_\_ Ext. \_\_\_\_\_  
 Production Check By: \_\_\_\_\_ Date 7-18-95 Authorized By: \_\_\_\_\_ Date JUL 18, 95  
 Job Description: STAR Residual Risks Accepted By: \_\_\_\_\_

WORK DISTRIBUTION				COST ESTIMATE CHANGES	
CRAFT: LIST ONLY THOSE INVOLVED	EST HRS FOR THIS CHANGE	PRINTS	C.O. DWGS	TOTAL HRS. _____	AT _____/HR.
C&M OFFICE				Labor \$ _____ THIS CHANGE ONLY } Material \$ _____ Sub-Total \$ _____ PREVIOUS TOTAL \$ _____ NEW TOTAL \$ _____	
ELEC. SHOPS OFF.					
MECH SHOPS OFF.					
MECH. TECH. OFF.					

INNER SECTOR MANIFOLD  
 TUBE MACHINING

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	<u>J. WIRTH</u>	<u>77</u>	<u>ASSY</u>	<u>5901</u>	<u>8/1/95</u>
ASSEMBLY					

SAFETY/ENVIRONMENTAL ANALYSIS BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PRELIM \_\_\_\_\_  
 FINAL \_\_\_\_\_

FABRICATION:  
 LBL SHOPS  
 OUTSIDE SHOPS  
 Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000

REFERENCE DISTRIBUTION			PRINTS		
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.	
<u>R. WELLS</u>	<u>70A</u>	<u>3307</u>	<u>1</u>	<u>-</u>	
<u>J. BERCOVITZ</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>-</u>	
<u>J. BOEHM</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>1</u>	
<u>J. WIRTH</u>	<u>77</u>	<u>ASSY</u>	<u>1</u>	<u>1</u>	

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES  
 PRINT DIVISION  
 MECH ENGR DEPT  
 LBL, BERKLEY  
 JUL 18 1 24 PM '95

ITEM NO.	SHOP USE	PRECEDING ORDER		THIS ORDER		NAME - DESCRIPTION
		DRAWING OR PART NUMBER	QUAN-TITY			
<u>11</u>		<u>24A4744</u>	<u>30</u>	<u>24A4744A</u>	<u>30</u>	<u>TUBE#11 MACHINING</u>
<u>12</u>		<u>24A4754</u>	<u>30</u>	<u>24A4754A</u>	<u>30</u>	<u>" #12 "</u>
<u>13</u>		<u>24A4764</u>	<u>30</u>	<u>24A4764A</u>	<u>30</u>	<u>" #13 "</u>
<u>14</u>		<u>24A4774</u>	<u>30</u>	<u>24A4774A</u>	<u>30</u>	<u>" #14 "</u>
<u>15</u>		<u>24A4784</u>	<u>30</u>	<u>NO CHANGE</u>	<u>30</u>	<u>" #15 "</u>

DESCRIPTION OF AND REASON FOR CHANGE  
See Page 1

CHANGE ORDER



DATE 7/7/95

TO: John

FROM: CHIP HOLLISTER  
BUILDING 77, ROOM 123B  
PLANNING & ESTIMATING OFFICE

The attached report summarizes the estimate for your Job Order Number 034364. This report documents the initial cost estimate including all Engineering Division burden. The Laboratory accounting system will add the appropriate overhead rates. The numbers across the top of the report denotes Building 77's Departments.

Please call if you have any questions regarding the attached.  
The CONTACT PERSON for this job is Jack Smith. EXT. 5901 B

MECHANICAL SHOPS

SHOP 1....	INSPECTION.....	JEROME CUMMINGS
SHOP 2....	NC MACHINING.....	JACK SMITH
SHOP 2A..	NC PROGRAMING.....	JACK SMITH
SHOP 3....	CONVENTIONAL MACHINING.....	JACK SMITH
SHOP 4....	PLANNING & ESTIMATING OFFICE.....	TOM WEST
SHOP 6....	SHEET METAL.....	JEFF CAIN
SHOP 7....	WELDING.....	JEFF CAIN
SHOP 7A..	NC WELD (BURN TABLE).....	JEFF CAIN
SHOP 8....	CERAMICS.....	ANDREW MEI
SHOP 9....	GLASS.....	TOM ORR
SHOP 10...	ASSEMBLY.....	DICK JOHNSON
SHOP 12..	PLATING.....	AL HARCOURT
SHOP 13...	TOOL GRINDING.....	GARY GERUE
SHOP 20...	PAINT (SAND BLAST).....	GARY GERUE

*John*  
*I added a note sheet to this stack so you could see the steps involved.*

*\* Remember that we spent 4 hrs, per ea part, on your two prototypes. For this quantity I would hope for about 1 hr ea.*



# ROUTING SHEET

SHEET NO. 1 OF 1

ESTIMATOR

ACCOUNT# 8052-24

Chip Hollister

RESPONSIBLE SHOP 2

SERIAL # 034364

DATE ISSUED 7/7/95

TOTAL ALLOCATED

GROUP STAR

PRINT # SEE JO

DATE REQ'D 8/4/95

522

REQUESTOR BOEHM

EXT. 6506

PART DESCRIPTION

480 TOTAL PARTS, ON 16 PRINTS, 30 EA. PER PRINT

OP NO.	DEPT	OPER.	SIGN OFF	DESCRIPTION	Hours	SIGN OFF
				SEE JON WIRTH FOR MAT'L		
10	2A			PROGRAM	8	
20	13			SPECIAL PILOT DRILL & CT B'R	2	
30	3			SAW PARTS AT METAL RACK, 16 FT. EXTRUSIONS BUNDLE, TIE, & SAW IN GROUPS PARTS RANGE FROM 21"-30"	12	
	2M			FINISH MACHINE (1 head?)	480	
50	1			CHECK 2 PARTS PER PRINT COLLECT ALL BEFORE DEGREASING	8	
60	12			DEGREASE	8	
70	1			NOTIFY THE REQUESTER, SIGN OFF	1	





# ESTIMATE TOTALS

serial#	print#	supv	helper	1	2	2a	3	4E	4	6	7	7a	8	10	C1	C2	12	20	
034295	24A4046A	0		3.5	90	4	6	2										2	
034295	24A4064A	0		1.5	16	1												1.5	
034295	24A4073A	0		1.5	16													.5	
034295	24A4083A	0		1	24													.5	

NC hrs	NC Cost	Non NC & Dept 4 hrs	Non NC & Dept 4 Cost	Contract 1 Cost	Contract 2 Cost	Total Cost (incl Helper & Contract)
151	\$8,108.70	20	\$924.38			\$9,033.08









# ESTIMATE TOTALS

serial#	print#	supv	helper	1	2	2a	3	4E	4	6	7	7a	8	10	C1	C2	12	20	
034323	24A4856	0		3.5	90	4	6	2										2	
034323	24A4864	0		1.5	16	1												1.5	
034323	24A4873	0		1.5	1.5	22												.5	
034323	24A4883	0		1	22													.5	
		0		1.5	7.5	150	5	6	2									4.5	
NC hrs																			
		NC Cost		Non NC & Dept 4 hrs		Non NC & Dept 4 Cost		Contract 1 Cost		Contract 2 Cost								Total Cost (incl Helper & Contract)	
155		\$8,323.50		20		\$924.38												\$9,313.43	





REQUESTED BY R. WELLS	BLDG. 70A / 3307	ROOM 70	DELIVERY TO BLDG. 314	RM. WELLS	NOTIFY 7925	EXT. WELLS	HOLD FOR ACCT. JO.
APPROVED BY Russell Wells	ACCOUNT NO. 8052-24	AMOUNT OF P.O.	SELLER CODE	STAT. CODE	SELLER'S NAME		

AUTHORIZATION \$10,000  \$50,000  OVER  SB  BB

**UNIVERSITY OF CALIFORNIA**

**PURCHASE REQUISITION**

FOR CONTRACT NO. DE-AC03-76SF00098  
WITH THE  
DEPARTMENT OF ENERGY

RECEIVING SUSPENSE COPY ROUTE TO STORES SUPPLY

BUYER Russell Wells	CODE 161	ORDER NO. 6408253	REQ. DATE 6/23/95
COST NOT TO EXCEED \$520. <sup>00</sup>		REFER BIDS TO	REQ. NO. 170562
		TERMS: FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER.	

**RUSH**

SHADED AREA FOR PURCHASING USE ONLY.		DATE MATERIAL RECEIVED:	PACKING LIST NO.
SELLER		DATE OF INSPECTION	RECEIVAL & INSPECTION CERTIFIED BY:
Street		CARRIER	DELIVERY RECEIPT NUMBER
City State		COLUMNS BELOW FOR PURCHASING, RECEIVING AND ACCOUNTING.	
Placed Date Contact		REQUISITIONERS MAY USE PRICE COLUMNS IF TOTAL ORDER ESTIMATE EXCEEDS \$1000.00	
<p>HAZARD REVIEW - At least one box must be checked:</p> <input type="checkbox"/> Chemical <input type="checkbox"/> Laser <input type="checkbox"/> Service Contracts <input type="checkbox"/> Radiological <input type="checkbox"/> Microwave <input type="checkbox"/> Other Hazards <input type="checkbox"/> Biological <input type="checkbox"/> X-Ray <input checked="" type="checkbox"/> No Hazards		F.O.B.	

SHIP BY	SHIP FROM	PROMISED DELIVERY TO CARRIER
---------	-----------	------------------------------

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
1		STESA PREG EP107-G133- 65 , G10 PREPREG STYLE 1080 GLASS CLOTH , 67% RESIN 0.15mm THICK <u>620mm WIDE!</u>	25m			
		CONTACT NICK SPENCER PAN AMERICAN COMPOSITES (714) 581-7051				
		<b>RUSH</b>				



ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date \_\_\_\_\_  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.  Account No. **8052-24** Serial No. **034396**

Ordered By: *J. Boehm* Ext. *506* Refer Questions To: *J. Boehm/Bercovitz* Ext. \_\_\_\_\_

Job Requested By: (Client) *J. Bercovitz* Ext. **5833**

Design Check By: (Engineer-Responsible) \_\_\_\_\_ Ext. \_\_\_\_\_

Production Check By: *JR Mehren* Date *6-26-95* Authorized By: *JM* Date *95/06/23*

Job Description: **STAR** Residual Risks Accepted By: \_\_\_\_\_

**INNER SECTOR MANIFOLD**

**TUBE MACHINING**

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	<i>J. WIRTH</i>	<i>77</i>	<i>Assy</i>	<i>501</i>	
ASSEMBLY					

REFERENCE DISTRIBUTION			PRINTS		
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.	
<i>R. WELLS</i>	<i>70A</i>	<i>3307</i>	<i>1</i>	<i>-</i>	
<i>J. BERCOVITZ</i>	<i>"</i>	<i>"</i>	<i>1</i>	<i>-</i>	
<i>J. BOEHH</i>	<i>"</i>	<i>"</i>	<i>1</i>	<i>1</i>	
<i>J. WIRTH</i>	<i>77</i>	<i>ASSY</i>	<i>1</i>	<i>1</i>	

WORK DISTRIBUTION							
CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	DWGS.
MECH. ENG.				MECH. SHOP OFF.		<b>2</b>	<b>2</b>
MECH. TECH. OFF.				ASS'Y SHOP			
SHOP 25				MACH. SHOP			
SHOP 71				PAINT SHOP			
SHOP				SHEET METAL			
SHOP				WELDING SHOP			
ELECT. ENG.				C&M OFFICE			
COORDINATING				CARPENTERS			
DRAFTING				ELECTRICIANS			
ELECT. FAB.				LABORERS			
ELECT. INSTALL				MAINT. TECHS			
ELECT. MAINT.				PAINTERS			
ELECT. Q.A.				PLUMBERS			
OPER. CHECK							
TECH. SUPP.				TOTAL HRS	AT	HR.	
ELEC-MECH. 80				LABOR	\$		
				MATERIAL	\$		
SAFETY SHOPS				TOTAL	\$		
SAFETY/ENVIRONMENTAL				FABRICATION:			
ANALYSIS				<input checked="" type="checkbox"/> LBL SHOPS			
BY: _____				<input type="checkbox"/> OUTSIDE SHOPS			
DATE: _____				Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000			
PRELIM. _____							
FINAL _____							

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

PRINT DIVISION  
 MECH ENGR DEPT  
 LBL BERKELEY  
 JUN 26 8 12 AM '95

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME	DESCRIPTION	INSTRUCTIONS
1	✓	24A4644	30 ea	TUBE # 01	MACHINING	*
2	✓	24A4654	30 ea	" # 02	"	*
3	✓	24A4664	30 ea	" # 03	"	*
4	✓	24A4674	30 ea	" # 04	"	*
5	✓	24A4684	30 ea	" # 05	"	*
6	✓	24A4694	30 ea	" # 06	"	*
7	✓	24A4704	30 ea	" # 07	"	*
8	✓	24A4714	30 ea	" # 08	"	*
9	✓	24A4724	30 ea	" # 09	"	*
10	✓	24A4734	30 ea	" # 10	"	*
11	✓	24A4744	30 ea	" # 11	"	*
12	✓	24A4754	30 ea	" # 12	"	*

JOB ORDER







ATTN Ron Ball

3745 25th AVENUE • SCHILLER PARK, IL 60176  
(708) 928-1500 FAX: (708) 928-2509

Date 6/15/95  
Page 1 of 1

Terms NET

# PAST DUE

### Bill-To Customer

LAWRENCE BERKLEY LAB  
1 CYCLETRON  
BLDG 77/125  
BERKLEY, CA 94705

Account  
022385

A service charge equivalent to 1½ % per month (18% per annum) will be added to all invoices past 30 days.

BALANCE DUE: 489.60

Return bottom part with your check payable to: **BELLAIRE EXPRESS**

Date	Invoice	Interest	1-30 Days	31-60 Days	61-90 Days	120 +
5/12/95	2165	7.34		489.60		

SENT ORIGINAL TO RON BALL + A COPY TO RICH WEIDENBACH

Ron - PLEASE CHARGE THE BELLAIRE COSTS (ON AT LEAST 2 ~~BEFORE~~ SHIPMENTS) TO 8052-24.

THANKS

Ron Will  
X7925

ACCT NO.	022385	Interest	1-30 Days	31-60 Days	61-90 Days	120 +
		7.34		489.60		

**THE ABOVE INVOICES ARE OVER 60 DAYS OLD. AS A VALUED CUSTOMER, PLEASE ENSURE A GOOD CREDIT RATING BY PAYING THESE INVOICES NOW.**



PURCHASE ORDER REFERRAL

TO: ACCOUNTING /  BERKELEY  LIVERMORE

PURCHASE ORDER NO. 48866A2 SELLER'S NAME ALLIED SIGNAL

PRICE CHANGE:  INCREASE  DECREASE ITEMS \_\_\_\_\_

QUANTITY CHANGE:  "  " ITEMS \_\_\_\_\_

NAME CHANGE: \_\_\_\_\_

NOT AUTHORIZED ON P. O. \_\_\_\_\_

OTHER: \_\_\_\_\_

INVOICE ATTACHED DATE \_\_\_\_\_ CONNIE BERRY  
ACCOUNTS PAYABLE

REPLY

FORMAL CHANGE ORDER IN PROCESS  PURCHASE ORDER IS CORRECT  
(ADDITIONAL CHARGES NOT AUTHORIZED)  
DATE \_\_\_\_\_

PURCHASING DIVISION

INTERNAL CHANGE ORDER No. 2

CHANGE PURCHASE ORDER TO AGREE WITH THE INVOICE ON ITEMS MARKED.

- CASH DISCOUNT
- SHIP VIA
- ORDER QUANTITY
- TRANSPORTATION TERMS
- SELLER'S NAME
- TOTAL PRICE
- ADDITIONAL CHARGE

DESCRIPTION OF CHANGE: THE QUANTITY AND TOTAL PRICE OF ITEM 1

ARE HEREBY DECREASED AS FOLLOWS:

1. AS WRITTEN	9 EA	\$ 57.54 EA	\$ 517.86	ORDER IS COMPLETE
---------------	---------	----------------	-----------	-------------------

REASON FOR CHANGE: \_\_\_\_\_

TO CLOSE THE ORDER OUT SHORT, PER REQUESTER R. WELLS

C: JOHN BERCOVITZ / RUSS WELLS  
GABE RUIZ

~~WRITTEN BY~~ DATE 6-12-95 Alon Campbell  
PURCHASING DIVISION AUTHORIZATION



ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 5/25/95 Account No. 8052-24 Serial No. 034323  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: J. BOEHM 6506 Ext. BOEHM/BERCOVITZ  
 Job Requested By: (Client) J. BERCOVITZ Ext. 5833  
 Design Check By: (Engineer Responsible) \_\_\_\_\_ Ext. \_\_\_\_\_

Production Check By: GA... Date 5.30.95  
 Authorized By: [Signature] Date MAY 25 1995  
 Residual Risks Accepted By: \_\_\_\_\_

Job Description: STAR  
INNER SECT MANIFOLD  
HEADER PARTS, RIGHT

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	<u>J. WIRTH</u>	<u>77</u>	<u>ASSY</u>	<u>590</u>	<u>8/25/95</u>
ASSEMBLY					

REFERENCE DISTRIBUTION		PRINTS	
SEND COPIES TO:	Bldg.	Rm.	J.O. DWGS.
<u>R. WELLS</u>	<u>70A</u>	<u>3307</u>	<u>1 -</u>
<u>J. BERCOVITZ</u>	<u>"</u>	<u>"</u>	<u>1 -</u>
<u>J. BOEHM</u>	<u>"</u>	<u>"</u>	<u>1 /</u>
<u>J. WIRTH</u>	<u>77</u>	<u>ASSY</u>	<u>1 /</u>

WORK DISTRIBUTION					
CRAFT	EST. HRS.	PRINTS J.O.   DWGS.	CRAFT	EST. HRS.	PRINTS J.O.   DWGS.
MECH. ENG.			MECH. SHOP OFF.	<u>1</u>	<u>2 2</u>
MECH. TECH. OFF.			ASS'Y SHOP		
SHOP 25			MACH. SHOP	<u>50</u>	
SHOP 71			PAINT SHOP		
SHOP			SHEET METAL		
SHOP			WELDING SHOP	<u>79</u>	
ELECT. ENG.			C&M OFFICE		
COORDINATING			CARPENTERS		
DRAFTING			ELECTRICIANS		
ELECT. FAB.			LABORERS		
ELECT. INSTALL			MAINT. TECHS		
ELECT. MAINT.			PAINTERS		
ELECT. Q.A.			PLUMBERS		
OPER. CHECK					
TECH. SUPP.			TOTAL HRS	<u>80</u>	<u>AT 64 HR.</u>
ELEC-MECH. 80			LABOR	\$	<u>5,120</u>
			MATERIAL	\$	<u>280</u>
			TOTAL	\$	<u>5,400</u>
SAFETY SHOPS			FABRICATION:		
SAFETY/ENVIRONMENTAL			<input checked="" type="checkbox"/> LBL SHOPS		
ANALYSIS			<input type="checkbox"/> OUTSIDE SHOPS		
BY: _____			DATE: _____		
PRELIM. _____			Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000		
FINAL _____					

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

PRINT DIVISION  
 MECH ENGR DEPT  
 LBL, BERKELEY  
 MAY 30 8 36 AM '95

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME - DESCRIPTION	INSTRUCTIONS
<u>1</u>		<u>24A4856</u>	<u>30</u>	<u>LOWER HEADER, RIGHT</u>	<u>SHOP TO FURN MATL</u>
<u>2</u>		<u>24A4864</u>	<u>30</u>	<u>UPPER HEADER, RIGHT</u>	<u>* EXTRUSION SUPPLIED BY STAR GRP</u>
<u>3</u>		<u>24A4873</u>	<u>30</u>	<u>HEADER PORT, RIGHT</u>	<u>SHOP TO FURN MATL</u>
<u>4</u>		<u>24A4883</u>	<u>30</u>	<u>DRAIN PORT, RIGHT</u>	<u>SHOP TO FURN MATL</u>
				<u>* Extrusion is out for bid and probably won't be delivered till 7/15/95 or so</u>	

JOB ORDER



ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 5/25/95 Account No. 8052-24 Serial No. 034322  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: J. Boehm 6506 Ext. Boehm Refer Questions To: J. Bercoity Ext. 5833  
 Job Requested By: (Client) J. Bercoity Ext. 5833  
 Design Check By: (Engineer Responsible) \_\_\_\_\_ Ext. \_\_\_\_\_

Production Check By: \_\_\_\_\_ Date 5-30-95 Authorized By: [Signature] Date MAY 25 '95  
 Job Description: STAR Residual Risks Accepted \_\_\_\_\_ By: \_\_\_\_\_

INNER SECTOR MANIFOLD  
HEADER PARTS, LEFT

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	<u>J. WIRTH</u>	<u>77</u>	<u>ASSY</u>	<u>590</u>	<u>5/25/95</u>
ASSEMBLY					

REFERENCE DISTRIBUTION		PRINTS	
SEND COPIES TO:	Bldg.	Rm.	J.O. DWGS.
<u>P. WELLS</u>	<u>70A</u>	<u>3307</u>	<u>1 -</u>
<u>J. BERCOITZ</u>	<u>"</u>	<u>"</u>	<u>1 -</u>
<u>J. BOEHM</u>	<u>"</u>	<u>"</u>	<u>1 1</u>
<u>J. WIRTH</u>	<u>77</u>	<u>ASSY</u>	<u>1 1</u>

WORK DISTRIBUTION							
CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	DWGS.
MECH. ENG.				MECH. SHOP OFF.	<u>1</u>	<u>2</u>	<u>2</u>
MECH. TECH. OFF.				ASS'Y SHOP			
SHOP 25				MACH. SHOP	<u>50</u>		
SHOP 71				PAINT SHOP			
SHOP				SHEET METAL			
SHOP				WELDING SHOP			
				<u>NC 29</u>			
ELECT. ENG.				C&M OFFICE			
COORDINATING				CARPENTERS			
DRAFTING				ELECTRICIANS			
ELECT. FAB.				LABORERS			
ELECT. INSTALL				MAINT. TECHS			
ELECT. MAINT.				PAINTERS			
ELECT. Q.A.				PLUMBERS			
OPER. CHECK							
TECH. SUPP.							
ELEC-MECH. 80							
SAFETY SHOPS							
SAFETY/ENVIRONMENTAL							
ANALYSIS							
BY: _____				DATE: _____			
PRELIM. _____							
FINAL _____							

TOTAL HRS 80 AT 6 HR.  
 LABOR \$ 5,120  
 MATERIAL \$ 280  
 TOTAL \$ 5,400

FABRICATION:  
 LBL SHOPS  
 OUTSIDE SHOPS  
 Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

PRINT DIVISION  
 MECH ENGR SECT  
 LBL BERKELEY  
 MAY 30 8 35 AM '95

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUAN-TITY	NAME	DESCRIPTION	INSTRUCTIONS
<u>1</u>		<u>24A4816</u>	<u>30</u>	<u>LOWER HEADER, LEFT</u>		<u>SHOP TO FURN MAT'D</u>
<u>2</u>		<u>24A4824</u>	<u>30</u>	<u>UPPER HEADER, LEFT</u>		<u>* EXTRUSION FURN BY STAR GROUP</u>
<u>3</u>		<u>24A4833</u>	<u>30</u>	<u>HEADER PORT, LEFT</u>		<u>SHOP TO FURN M.</u>
<u>4</u>		<u>24A4843</u>	<u>30</u>	<u>DRAIN PORT, LEFT</u>		<u>" " " "</u>

\* Extrusion is out for bid and probably won't be delivered till 7/15/95 or so

JOB ORDER

PRINT NUMBERS

UNIVERSITY OF CALIFORNIA  
LAWRENCE BERKELEY LAB

SERIAL NUMBER

REQUEST FOR PROCUREMENT

REQUESTER R. WELLS DATE REQUESTED 5/22/97

DELIVER TO G. KOEHLER DATE NEEDED 6/10/97

BLDG 77A ROOM 105 PHONE NUMBER 7925

ACCOUNT NO. 8052-24 AUTHORIZED SIGNATURE Russell Wells

QUANTITY	DESCRIPTION	APPROX PRICE
----------	-------------	--------------

2000	WASHERS, PHOSPHOR BRONZE 0.580" OD, 0.324" ID x 0.032" THICK	\$ 0.124 / EA
------	---	---------------

TUMBLE DEBURRED  
TOLERANCES  
±.005 ID/OD  
±10% ON THICKNESS  
FLAT TO 0.005" IN DIA

\$ 248 / LOT

VENDOR <u>BOKER'S INC</u>	SHIP CODE _____
ADDRESS <u>3104 SNELLING AVE SOUTH</u>	TOTAL COST _____
CITY <u>MINNEAPOLIS</u> STATE <u>MN</u>	P.O. NO. _____
PHONE NUMBER <u>612-729-9365</u> <u>55406-1937</u>	TERMS _____
CONTACT <u>MIKE</u>	PICK UP DATE _____
REMARKS <u>SHIP 2 WEEKS A.R.O.</u> <u>2 WEEKS ARO</u>	TIME AFTER _____
REQUISITION NUMBER _____	CLOSED DURING LUNCH YES <input type="checkbox"/> NO <input type="checkbox"/>
	VEHICLE _____



**UNIVERSITY OF CALIFORNIA  
 ERNST ORLANDO LAWRENCE  
 BERKELEY NATIONAL LABORATORY**  
 FOR CONTRACT NO. DE-AC03-76SF00098  
 WITH THE DEPARTMENT OF ENERGY

**SUBCONTRACTOR:**

Bokers Inc  
 3140 Snelling Ave South  
 Minneapolis, MN 55406

**SHIP TO:**

UC Lawrence Berkeley Lab  
 For the US Dept of Energy  
 2700 - 7th Street  
 Berkeley, CA 94710

MAIL INVOICE IN DUPLICATE TO  
 UNIVERSITY OF CALIFORNIA:

UC Lawrence Berkeley Lab  
 Accounts Payable Dept  
 PO Box 528  
 Berkeley, CA 94701

**Subcontract**

<b>Subcontract #</b> 6455089	<b>Page</b> 1
This subcontract number MUST appear on all invoices, packing lists, cartons and correspondence related to this subcontract.	
<b>Subcontract Date</b> 23-MAY-97	<b>Buyer</b> J MOREAU
<b>Revision Date</b>	510-486-5523
Buyer	

<b>Customer Account</b>	<b>Vendor No.</b> 103022	<b>Payment Terms</b> Net 30 Days	<b>F.O.B.</b>	<b>Shipping Point</b>	<b>Ship Via</b> FedEx GOS
-------------------------	-----------------------------	-------------------------------------	---------------	-----------------------	------------------------------

**Subcontractor Contact**  
 Requester / Deliver to  
 WELLS, RUSSELL P

FOR RESALE-State Sales Tax should not be charged, as the University holds State Sales Tax Permit SR CH 21-835970 for deliveries to Lawrence Berkeley National Laboratory.

LINE	PART NUMBER/DESCRIPTION	DELIVERY DATE	QUANTITY	UNIT	UNIT PRICE	EXTENSION	TAX
1	CONFIRMED TO: MIKE ON 23-MAY-97 -- DO NOT DUPLICATE! Washers, phosphor bronze, 0.580" OD x 0.324" ID x 0.032" thk, tumble deburred, +/- 10% on told quantity, 1 lot = 2000 ea.	10-JUN-97	1.00	LOT	248	248.00	N

**TOTAL:** 248.00

The Terms and Conditions Attached  
 Constitute A Part Of This Subcontract

-Requester's copy-

Authorized by \_\_\_\_\_  
 University of California, Lawrence Berkeley National Laboratory

JOHN MOREAU

PRINT NUMBERS

UNIVERSITY OF CALIFORNIA  
LAWRENCE BERKELEY LAB  
REQUEST FOR PROCUREMENT

SERIAL NUMBER

REQUESTER R. WELLS DATE REQUESTED 5/22/97  
DELIVER TO G KOEHLER DATE NEEDED 6/10/97\*  
BLDG 77A ROOM 105 PHONE NUMBER \_\_\_\_\_  
ACCOUNT NO. 8052-24 AUTHORIZED SIGNATURE Russell Will

QUANTITY DESCRIPTION APPROX PRICE

1600 5/16-18 x 1" SOCKET HD CAP SCREWS, \$1800-  
SILICON BRONZE  
OR NON-MAGNETIC BRASS

VENDOR _____	SHIP CODE _____
ADDRESS _____	TOTAL COST _____
CITY _____ STATE _____	P.O. NO. _____
PHONE NUMBER _____	TERMS _____
CONTACT _____	PICK UP DATE _____
REMARKS * PREFERRED, LATER DELIVERY (MID JULY) ACCEPTABLE. PARTIAL SHIPMENT OK	TIME AFTER _____
REQUISITION NUMBER _____	CLOSED DURING LUNCH YES <input type="checkbox"/> NO <input type="checkbox"/>
	VEHICLE _____



ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 5/21/97 Account No. 8052-24 Serial No. 036277  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: John M. Ortiz 7298 Ext. 7298 Refer Questions To: ← Ext. \_\_\_\_\_  
 Job Requested By: (Client) Ext. Russ Wells  
 Design Check By: (Engineer Responsible) Ext. Russ Wells  
 Production Check By: Russ Wells Date 5/21/97 Authorized By: Russ Wells Date 5/21/97  
 Job Description: RHC-STAR-TPC Residual Risks Accepted By: \_\_\_\_\_

WORK DISTRIBUTION							
CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	DWGS.
MECH. ENG.				MECH. SHOP OFF.	30	2	2
MECH. TECH. OFF.				ASS'Y SHOP			
SHOP 25				MACH. SHOP			
SHOP 71				PAINT SHOP			
SHOP				SHEET METAL			
SHOP				WELDING SHOP			
ELECT. ENG.				C&M OFFICE			
COORDINATING				CARPENTERS			
DRAFTING				ELECTRICIANS			
ELECT. FAB.				LABORERS			
ELECT. INSTALL				MAINT. TECHS			
ELECT. MAINT.				PAINTERS			
ELECT. Q.A.				PLUMBERS			
OPER. CHECK							
TECH. SUPP.							
ELEC-MECH. 80							
SAFETY SHOPS							
SAFETY/ENVIRONMENTAL							
ANALYSIS							
BY: _____							
PRELIM. _____							
FINAL _____							

SECTORS  
 INNER SECTOR COOLING MANIFOLD BONDING FIXTURE

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	<u>JOHN WIRTH</u>	<u>77A</u>			
ASSEMBLY					

REFERENCE DISTRIBUTION		PRINTS		
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.
<u>WELLS</u>	<u>70</u>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>ORTIZ</u>	<u>70</u>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>WIRTH</u>	<u>77</u>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>WEST</u>	<u>77</u>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>MORTON</u>	<u>77</u>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>KOEHLER</u>	<u>70</u>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

TOTAL HRS 30 AT \_\_\_\_\_ HR.  
 LABOR \$ 1,500.00  
 MATERIAL \$ 100.00  
 TOTAL \$ 1,600.00

FABRICATION:  
 LBL SHOPS  
 OUTSIDE SHOPS  
 Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

DIVISION  
 ENGR DEPT  
 BERKELEY  
 2 28 PM '97

JOB ORDER RECORD

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME	DESCRIPTION	INSTRUCTIONS
1		<u>2AA4806B</u>	1		<u>INNER SECTOR COOLING MANIFOLD BONDING BASE</u>	
* 2		<u>2AA4806B</u>	20		<u>STEEL PIN, φ.089 (#43) X 1.00 LG.</u>	
* 3		<u>2AA4806B</u>	2		<u>STEEL PIN, φ.104 (#37) X 1.00 LG.</u>	
* 4		<u>2AA4806B</u>	8		<u>STEEL PIN, φ.152 (#24) X 1.00 LG.</u>	
5		<u>2AA9166A-1</u>	2		<u>INNER SECTOR COOLING MANIFOLD FIX. PLATE</u>	
6		<u>2AA9166A-2</u>	2		<u>INNER SECTOR COOLING MANIFOLD FIX. PLATE</u>	
* 7		<u>NOTE: MATERIAL FOR ITEMS 2, 3 AND 4 TO BE FURNISHED BY DOUG MORTON IN BLDG 77A</u>				
		<u>X 5901</u>				



ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 5/16/95 Account No. 8052-2A Serial No. 034295  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: J. Boehm Ext. 6506 Refer Questions To: Boehm/Bercovitz Ext. 5833  
 Job Requested By: (Client) J. Bercovitz Ext. 5833  
 Design Check By: (Engineer Responsible) \_\_\_\_\_ Ext. \_\_\_\_\_

Production Check By: J. Boehm Date 5-18-95 Authorized By: J. Bercovitz Date MAY 16 '95  
 Job Description: STAR Residual Risks Accepted '95  
 By: \_\_\_\_\_

OUT SECT MANIFOLD  
HEADER PARTS, LEFT

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	<u>J. WIRTH</u>	<u>77</u>	<u>AS4</u>	<u>5901</u>	<u>8/7/95</u>
ASSEMBLY					

REFERENCE DISTRIBUTION		PRINTS		
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.
<u>R. WELLS</u>	<u>70A</u>	<u>3307</u>	<u>1</u>	<u>-</u>
<u>J. BERCOVITZ</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>-</u>
<u>J. BOEHM</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>2</u>
<u>J. WIRTH</u>	<u>77</u>	<u>ASSY</u>	<u>1</u>	<u>2</u>

WORK DISTRIBUTION							
CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	DWGS.
MECH. ENG.				MECH. SHOP OFF.	<u>1</u>	<u>2</u>	<u>2</u>
MECH. TECH. OFF.				ASS'Y SHOP			
SHOP 25				MACH. SHOP	<u>50</u>		
SHOP 71				PAINT SHOP			
SHOP				SHEET METAL			
SHOP				WELDING SHOP			
				<u>NC</u>	<u>29</u>		
ELECT. ENG.				C&M OFFICE			
COORDINATING				CARPENTERS			
DRAFTING				ELECTRICIANS			
ELECT. FAB.				LABORERS			
ELECT. INSTALL				MAINT. TECHS			
ELECT. MAINT.				PAINTERS			
ELECT. Q.A.				PLUMBERS			
OPER. CHECK							
TECH. SUPP.				TOTAL HRS	<u>80</u>	AT	<u>64</u> HR.
ELEC-MECH. 80				LABOR	\$	<u>5,120.-</u>	
				MATERIAL	\$	<u>280.-</u>	
				TOTAL	\$	<u>5,400</u>	
SAFETY SHOPS				FABRICATION:			
SAFETY/ENVIRONMENTAL				<input checked="" type="checkbox"/> LBL SHOPS			
ANALYSIS				<input type="checkbox"/> OUTSIDE SHOPS			
BY: _____ DATE: _____				Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000			
PRELIM. _____							
FINAL _____							

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

PRINT DIVISION  
 MECH ENGR DEPT  
 LBL, BERKELEY  
 MAY 18 7 12 AM '95

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME - DESCRIPTION	INSTRUCTIONS
<u>1</u>		<u>24A4046A</u>	<u>30</u>	<u>LOWER HEADER, LEFT</u>	<u>SHOP TO FURN. MAT'L</u>
<u>2</u>		<u>24A4064A</u>	<u>30</u>	<u>UPPER HEADER, LEFT</u>	<u>* EXTRUSION SUPPLY BY STAR</u>
<u>3</u>		<u>24A4073A</u>	<u>30</u>	<u>HEADER PORT, LEFT</u>	<u>SHOP TO FURN. MAT'L</u>
<u>4</u>		<u>24A4083A</u>	<u>30</u>	<u>DRAIN PORT, LEFT</u>	<u>SHOP TO FURN. MAT'L.</u>

\* Extrusion out for bid as of 5/16/95, with a 7/15/95 delivery date request, but don't hold your breath.

Previous Similar J.O. : 033593, dated 3 MAR '94

JOB ORDER



ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date: 5/16/95 Account No. 8052-24 Serial No. 034294  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: Ext. J. BOEHM 6506 Refer Questions To: Ext. Boehm/Bercovitz  
 Job Requested By: (Client) Ext. J. BERCOVITZ 5833  
 Design Check By: (Engineer Responsible) Ext. \_\_\_\_\_

Production Check By: Date 5-18-95 Authorized By: Date MAY 17  
 Job Description: STAR Residual Risks Accepted 95  
 By: \_\_\_\_\_

OUT SECT. MANIFOLD  
 HEADER PARTS, RIGHT

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	J. WIRTH	77	Assy	5901	8/14/95
ASSEMBLY					

REFERENCE DISTRIBUTION		PRINTS			
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.	
R. WELLS	70A	3307	1	—	
J. BERCOVITZ	"	"	1	—	
J. Boehm	"	"	1	2	
J. WIRTH	77	ASSY	1	2	

WORK DISTRIBUTION					
CRAFT	EST. HRS.	PRINTS J.O.   DWGS.	CRAFT	EST. HRS.	PRINTS J.O.   DWGS.
MECH. ENG.			MECH. SHOP OFF.	1	2-2
MECH. TECH. OFF.			ASS'Y SHOP		
SHOP 25			MACH. SHOP	50	
SHOP 71			PAINT SHOP		
SHOP			SHEET METAL		
SHOP			WELDING SHOP		
			NC	29	
ELECT. ENG.			C&M OFFICE		
COORDINATING			CARPENTERS		
DRAFTING			ELECTRICIANS		
ELECT. FAB.			LABORERS		
ELECT. INSTALL			MAINT. TECHS		
ELECT. MAINT.			PAINTERS		
ELECT. Q.A.			PLUMBERS		
OPER. CHECK					
TECH. SUPP.					
ELEC-MECH. 80					
SAFETY SHOPS			TOTAL HRS 80 AT 64 HR.		
SAFETY/ENVIRONMENTAL			LABOR \$ 5,120		
ANALYSIS			MATERIAL \$ 280		
BY: _____ DATE: _____			TOTAL \$ 5,400		
PRELIM. _____			FABRICATION:		
FINAL _____			<input checked="" type="checkbox"/> LBL SHOPS <input type="checkbox"/> OUTSIDE SHOPS Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000		

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

PRINT DIVISION  
 MECH ENGR DEPT  
 L. BERKELEY  
 18 7 12 AM '95

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME	DESCRIPTION	INSTRUCTIONS
1		24A4166A	30	LOWER HEADER, RIGHT		SHOP TO FURN. MAT'L
2		24A4174A	30	UPPER HEADER, RIGHT	*	EXTRUSION SUPPLIED BY STA
3		24A4183A	30	HEADER PORT, RIGHT		SHOP TO FURN. MAT'L.
4		24A4193A	30	DRAIN PORT, RIGHT		SHOP TO FURN. MAT'L

\* Extrusion out for bid as of 5/16/95 with a 7/15/95 delivery date request, but don't hold your breath.

Previous similar J.O.: 033622 dated 3/16/94

JOB ORDER





Invoice No. 2225  
Date 5/19/95  
Page 1 of 1

3745 25th AVENUE • SCHILLER PARK, IL 60176  
(708) 928-1500 FAX: (708) 928-2509

Terms NET

# INVOICE

**Bill-To Customer**

**Account**  
022385

A service charge equivalent to 1½ % per month (18% per annum) will be added to all invoices past 30 days.

LAWRENCE BERKLEY LAB  
1 CYCLETRON  
BLDG 77/125  
BERKLEY, CA 94705

**BALANCE DUE:** 750.71

*Return top portion with your check payable to: **BELLAIRE EXPRESS***

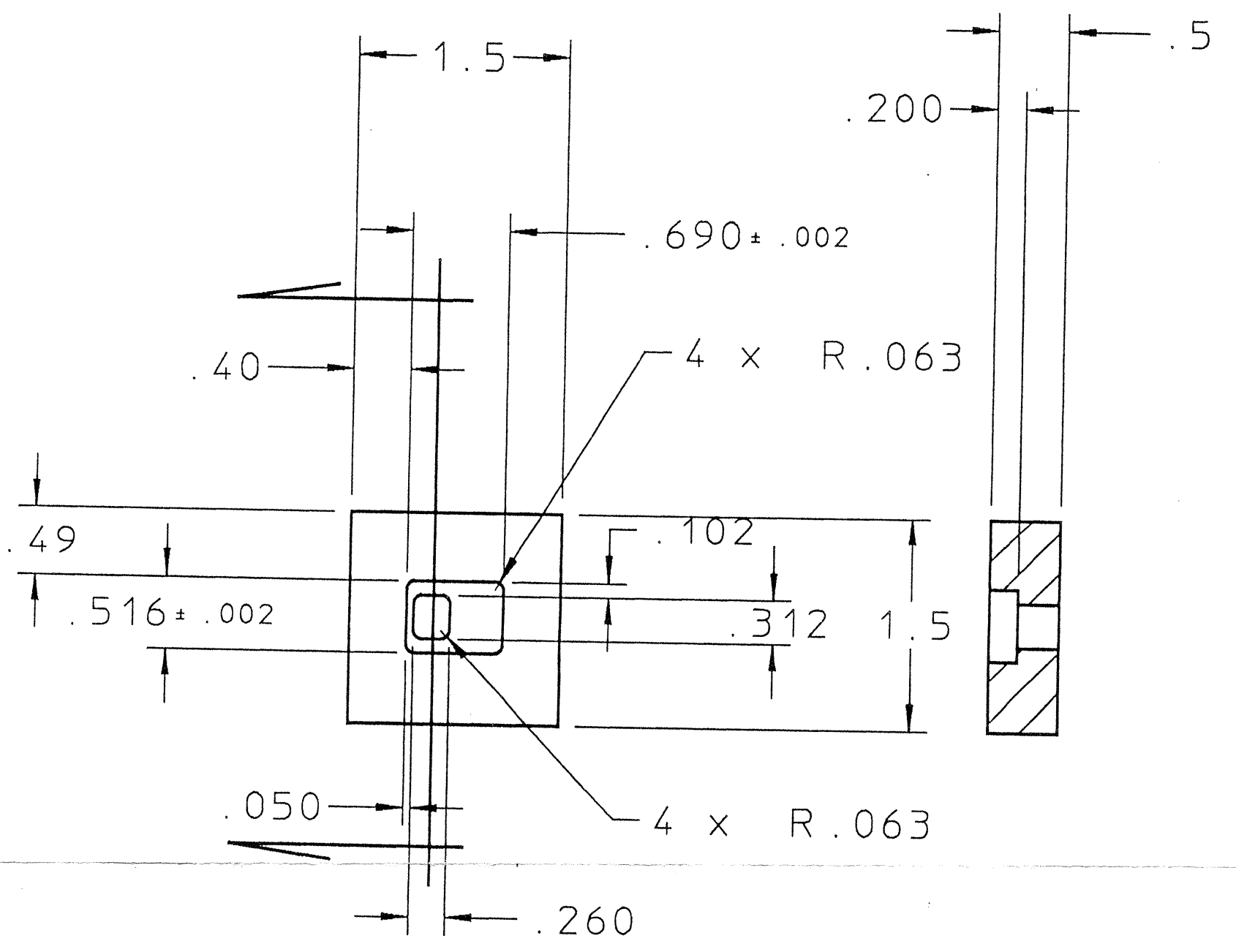
Date	Bill No.	PO# / Sender Name & Address	Sent-To Name & Address	Service(s)	Pieces	Weight	Charges
5/11/95	1015045	P.O.# 8052-24 Note: JOHN WORTN UNIVERSITY OF TEXAS 2200 COMAL AUSTIN, TX 78722	JERRY HOFFMAN LAWRENCE BERKLEY LAB 1 CYCLETRON BLDG 77/125 BERKLEY, CA 94705	Door/Door Deferred	6	1631	750.71



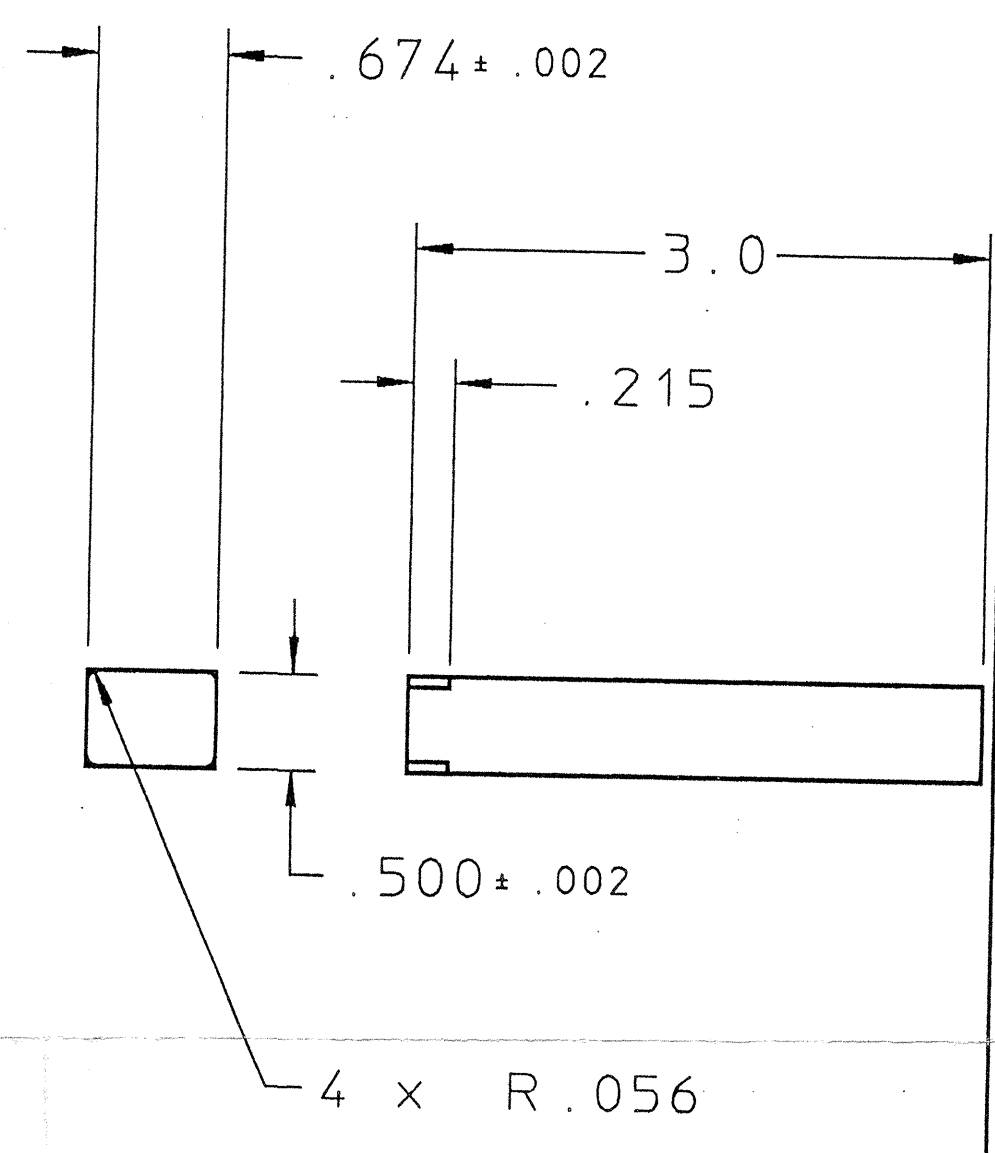




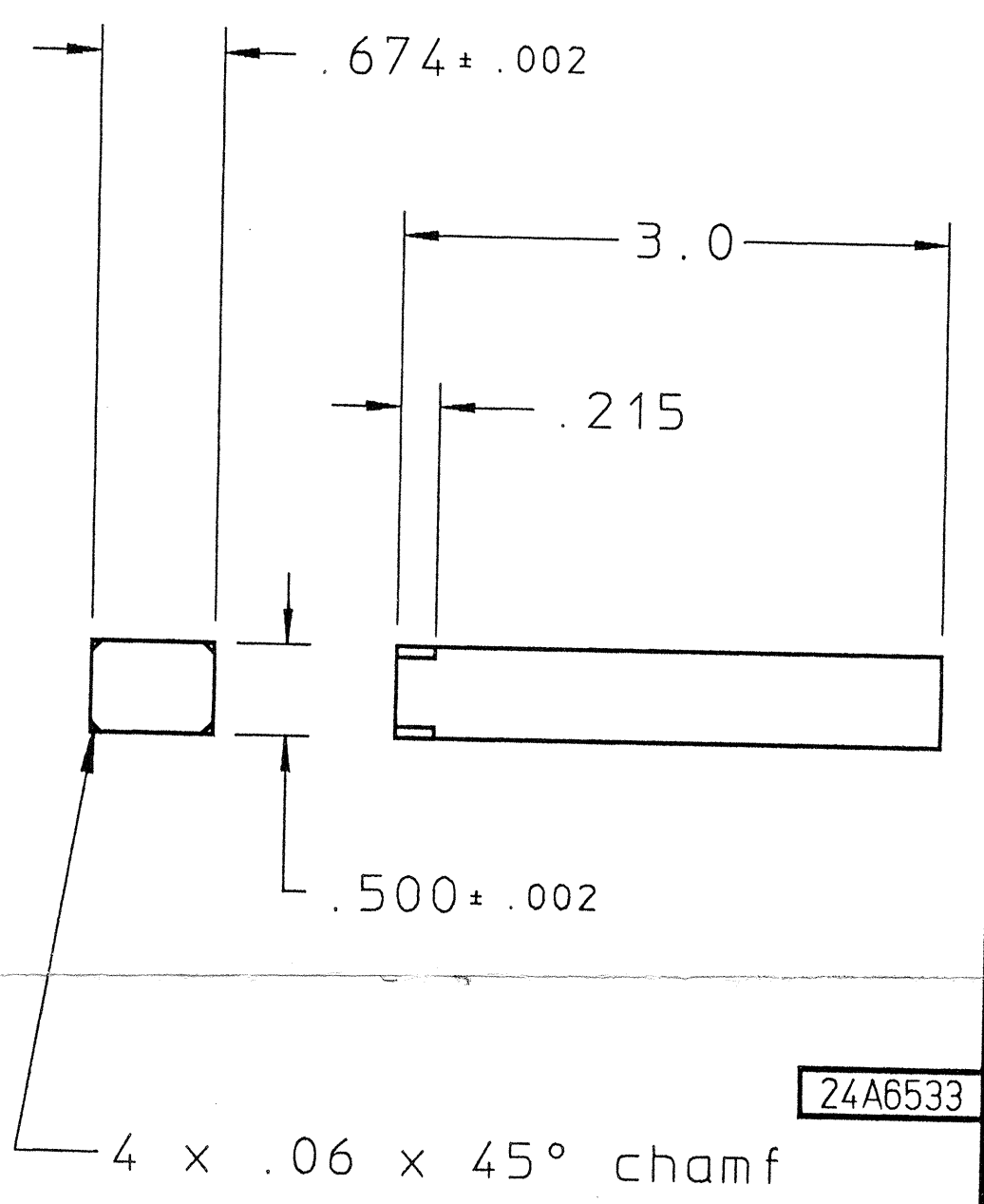
ITEM	REQ	PART NUMBER	DESCRIPTION
			ACRYLIC, CLEAR



**PART 24A6533-1**



**PART 24A6533-2**



**PART 24A6533-3**

ALL PARTS: ALL MACHINED SURFACES 32 FINISH

24A6533

UNLESS OTHERWISE SPECIFIED		SHOP ORDERS		LAWRENCE BERKELEY LABORATORY	
ALL DIMENSIONS ARE INCHES		ACCT. NO. SER. NO.		STAR DRAWING NUMBER REV. RHC DRAWING NUMBER REV.	
CENTIMETERS		DATE ISSD. DATE REQD. NO. REQD.		TPCxxx-C-1 A XXXXXXXXXXXX -	
TOLERANCES: .X/.X = ±.06/.15 ANGLES ±.5°		DELIVER TO:		RHIC-STAR-TPC	
.XX/.X = ±0.02/0.05 FINISH		SURFACE TREATMENT: rinse w/alcohol		OUTER SECTOR COOLING MANIFOLD ASSEMBLY	
0.XXX/.XX = ±.005/.01 125/32 ✓		IDENTIFICATION METHOD: BAG & TAG		tube/socket bond test	
SAWED, FLAMECUT, SHEARED OR STOCK FINISH ✗		PATENT CLEAR DRAWING TYPE SHOWN ON		SCALE: FULL DO NOT SCALE PRINTS	
ALL SCREW THREADS ARE ISO METRIC CLASS 6		DRWN BY: J BOEHM		MICROFILMED DESIGN ACCOUNT CATEGORY CODE	
BREAK EDGES .020/.05 MAX ON MACHINE WORK		DATE: 95/05/18		8052-24 SR-02-04	
REFERENCE - ANSI Y14.5 & B46.1		CHECK BY:		LBL DRAWING NUMBER REV.	
REV.	DWN.	CHK.	DATE	24A6533	
CHANGES					



ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 5/16/95 Account No. 8052-24 Serial No. 334312  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: J. Boehm Ext. 6506 Refer Questions To: Boehm/Bercoity Ext. \_\_\_\_\_

Job Requested By: (Client) J. Bercoity Ext. 5833

Design Check By: (Engineer Responsible) \_\_\_\_\_ Ext. \_\_\_\_\_

Production Check By: J.R. Mehren Date 5-22-95 Authorized By: [Signature] Date MAY 19

Job Description: PHIC-STAR Residual Risks Accepted 95 By: \_\_\_\_\_

OUTER SECTOR COOLING MAN BRACKETS

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	<u>J. WIRTH</u>	<u>77</u>	<u>Assy</u>	<u>5901</u>	<u>9/15/95</u>
ASSEMBLY					

REFERENCE DISTRIBUTION		PRINTS			
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.	
<u>R. WELLS</u>	<u>70A</u>	<u>3307</u>	<u>1</u>	<u>-</u>	
<u>J. BERCOITZ</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>-</u>	
<u>J. BOEHM</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>1</u>	
<u>J. WIRTH</u>	<u>77</u>	<u>ASSY</u>	<u>1</u>	<u>1</u>	
<u>R. BALL</u>	<u>69</u>	<u>201</u>	<u>1</u>	<u>1</u>	
<u>J. Mehren</u>	<u>90</u>	<u>2068</u>	<u>1</u>	<u>1</u>	

WORK DISTRIBUTION							
CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	DWGS.
MECH. ENG.				MECH. SHOP OFF.	<u>.5</u>	<u>2</u>	<u>2</u>
MECH. TECH. OFF.				ASS'Y SHOP			
SHOP 25				MACH. SHOP			
SHOP 71				PAINT SHOP			
SHOP				SHEET METAL			
SHOP				WELDING SHOP			
ELECT. ENG.				C&M OFFICE			
COORDINATING				CARPENTERS			
DRAFTING				ELECTRICIANS			
ELECT. FAB.				LABORERS			
ELECT. INSTALL				MAINT. TECHS			
ELECT. MAINT.				PAINTERS			
ELECT. Q.A.				PLUMBERS			
OPER. CHECK							
TECH. SUPP.				TOTAL HRS	<u>.05</u>	AT	HR.
ELEC-MECH. 80				LABOR	\$		
				MATERIAL	\$		
SAFETY SHOPS				TOTAL	\$		
SAFETY/ENVIRONMENTAL				FABRICATION:			
ANALYSIS				<input type="checkbox"/> LBL SHOPS <input checked="" type="checkbox"/> OUTSIDE SHOPS			
BY: _____				Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000			
PRELIM. _____				DATE: _____			
FINAL _____							

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

JOB ORDER

Req. # 301394

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUAN-TITY	NAME - DESCRIPTION - INSTRUCTIONS
1		24A0833-1	30	HEADER PORT BRACKET - RIGHT
2		24A0833-2	30	" " " - LEFT
3		24A0842	60	SUPPORT BRACKET, 1st COOLING TUBE
4		24A0852	30	" " 6th " " "
5		24A0862	60	" " 11th " " "
6		24A0872	60	" " 13th " " "
Vendor to supply Mat'l				
RFQ by outside shops				
Estimated Cost \$ 1,350. -				

PRINT DIVISION  
 MECH ENGR DEPT  
 JBL BERKELEY  
 MAY 22 10 47 AM '95



R E P R I N T

Invoice No. 2165  
Date 5/12/95  
Page 1 of 1

3745 25th AVENUE • SCHILLER PARK, IL 60176  
(708) 928-1500 FAX: (708) 928-2509

Terms NET

# INVOICE

**Bill-To Customer**

LAWRENCE BERKLEY LAB  
1 CYCLETRON  
BLDG 77/125  
BERKLEY, CA 94705

**Account**  
022385

A service charge equivalent to  
1½ % per month (18% per annum)  
will be added to all invoices  
past 30 days.

**BALANCE DUE: 489.60**

*Return top portion with your check payable to: **BELLAIR EXPRESS***

Date	Bill No.	PO# / Sender Name & Address	Sent-To Name & Address	Service(s)	Pieces	Weight	Charges
5/03/95	1014811	P.O.# LBL 80502-24 Note: JERRY HOFFMAN UNIVERSITY OF TEXAS 2200 COMAL AUSTIN, TX 78722	JOHN WORTHY LAWRENCE BERKLEY LAB 1 CYCLETRON BLDG 77/125 BERKLEY, CA 94705	Door/Door Overnight	2	576	489.60



ORIGINAL INVOICE 2165

ACCT NO. 022385

BALANCE DUE: 489.60



ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 5/16/95 Account No. 8052-24 Serial No. 334293  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: J. Bodin Ext. 6506 Refer Questions To: Bodin/Berowitz Ext. 5833  
 Job Requested By: (Client) J. Bercovitz  
 Design Check By: (Engineer Responsible) \_\_\_\_\_ Ext. \_\_\_\_\_

Production Check By: J. Melvin Date 5/16/95 Authorized By: [Signature] Date MAY 16  
 Job Description: STAR Residual Risks Accepted '95  
 By: \_\_\_\_\_

SECTOR MANIFOLD  
UPPER HEADER EXTRUSION

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	<u>J. WIRTH</u>	<u>77</u>	<u>Assy</u>	<u>5901</u>	<u>7/15/95</u>
ASSEMBLY					

REFERENCE DISTRIBUTION		PRINTS		
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.
<u>R. WELLS</u>	<u>70A</u>	<u>3307</u>	<u>1</u>	<u>—</u>
<u>J. BERCOVITZ</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>—</u>
<u>J. BOEHM</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>2</u>
<u>J. WIRTH</u>	<u>77</u>	<u>ASSY</u>	<u>1</u>	<u>2</u>
<u>R. BAY</u>	<u>69</u>	<u>201</u>	<u>1</u>	<u>1</u>
<u>J. Melvin</u>	<u>90</u>	<u>2065</u>	<u>1</u>	<u>1</u>

WORK DISTRIBUTION							
CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	DWGS.
MECH. ENG.				MECH. SHOP OFF.			
MECH. TECH. OFF.				ASS'Y SHOP			
SHOP 25				MACH. SHOP			
SHOP 71				PAINT SHOP			
SHOP				SHEET METAL			
SHOP				WELDING SHOP			
ELECT. ENG.				C&M OFFICE			
COORDINATING				CARPENTERS			
DRAFTING				ELECTRICIANS			
ELECT. FAB.				LABORERS			
ELECT. INSTALL				MAINT. TECHS			
ELECT. MAINT.				PAINTERS			
ELECT. O.A.				PLUMBERS			
OPER. CHECK							
TECH. SUPP.				TOTAL HRS	AT	HR.	
ELEC-MECH. 80				LABOR	\$		
				MATERIAL	\$		
				TOTAL	\$		
SAFETY SHOPS				FABRICATION:			
SAFETY/ENVIRONMENTAL				<input type="checkbox"/> LBL SHOPS <input checked="" type="checkbox"/> OUTSIDE SHOPS			
ANALYSIS				Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000			
BY: _____				DATE: _____			
_____ PRELIM.							
_____ FINAL							

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

PRINT DIVISION  
 MECH ENGR DEPT  
 BL. BERKELEY  
 16 4 29 PM '95

Req. 6013256

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME	DESCRIPTION	INSTRUCTIONS
1		<u>2AA6512</u>	<u>250</u> <u>units</u>	<u>UPPER HEADER EXTRUSION</u>		
<p><u>RFQ: Estimated Cost \$2,500. —</u></p> <p><u>Suggested vendor list:</u></p> <p><u>1 SUPERIOR METAL SHAPES, INC</u>  <u>1471 VALENCIA PLACE, ONTARIO, Ca 91761</u>  <u>Phone (909) 947-3455 Fax (909) 947-5245</u></p> <p><u>2 AMALCO METALS INC</u> <u>Phone (510) -487-1300</u>  <u>33955 - 7th STREET, UNION CITY, Ca. 94587</u></p> <p><u>3 RYERSON STEEL, 1465 - 65th Street, Emeryville, Ca 94608</u></p>						

JOB ORDER





Lawrence Berkeley Laboratory  
STAR Project Office  
(510)486-6546 MS 70A-3307

MEMORANDUM

Date: May 10, 1995  
To: Tom Ludlam  
From: Pam Henderson and Bill Edwards PH.  
Subject: Wayne State University Scope of Work Change

---

Within a couple of weeks you should be receiving from Wayne State University a revised MOU indicating their scope of work changes and a notice to reduce their funding allocation. The scope of work change that should be referenced in the revised MOU is section I. A. Task 1: WBS 4.2.4.1. As stated in the original MOU 54 sector backers were to be provided to LBL. It was later decided that LBL would do the machining, so the MOU should be modified to reflect that 2 prototypes and 24 rough machined backers have been delivered to LBL.

As of April 30, 1995 Wayne State has expended \$40,112.41 of the \$84,000 allocated to them in FY94 for the aforementioned task. This leaves \$43,887.59 in remaining funds, and this is the amount that the Wayne State University funding allocation should be reduced.

Please contact Pam Henderson if there is a discrepancy between the information provided above and the revised MOU you receive from Wayne State University, or if you have any questions.

cc: R. Wells  
STAR Project Files



ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date: 4/29/95 Account No. 8052-24 Serial No. 034269  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: Boehm 6506 Ext. 6506 Refer Questions To: Boehm/Bercovitz Ext. 5833  
 Job Requested By: (Client) J. Bercovitz Ext. 5833  
 Design Check By: (Engineer Responsible) \_\_\_\_\_ Ext. \_\_\_\_\_

Production Check By: R. Melman Date 5-1-95 Authorized By: J. Bercovitz Date 4/29/95  
 Job Description: STAR Residual Risks Accepted \_\_\_\_\_  
 By: \_\_\_\_\_

INNER SECTOR WIRE MNTS  
SHIELD WIRE MNT, RIGHT

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	J. WIRTH	77	ASSY	5901	6/30/95
ASSEMBLY					

REFERENCE DISTRIBUTION		PRINTS		
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.
K. WELLS	70A	3307	1	~
J. BERCOVITZ	"	"	1	-
J. BOEHM	"	"	1	2
J. WIRTH	77	ASSY	1	2

WORK DISTRIBUTION							
CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	DWGS.
MECH. ENG.				MECH. SHOP OFF.	1	2	2
MECH. TECH. OFF.				ASS'Y SHOP			
SHOP 25				MACH. SHOP	21		
SHOP 71				PAINT SHOP			
SHOP				SHEET METAL			
SHOP				WELDING SHOP			
ELECT. ENG.				C&M OFFICE			
COORDINATING				CARPENTERS			
DRAFTING				ELECTRICIANS			
ELECT. FAB.				LABORERS			
ELECT. INSTALL				MAINT. TECHS			
ELECT. MAINT.				PAINTERS			
ELECT. Q.A.				PLUMBERS			
OPER. CHECK							
TECH. SUPP.				TOTAL HRS	21	AT	65 HR.
ELEC-MECH. 80				LABOR	\$	4,365.	
				MATERIAL	\$		
				TOTAL	\$	4,365.	
SAFETY SHOPS				FABRICATION:			
SAFETY/ENVIRONMENTAL				<input checked="" type="checkbox"/> LBL SHOPS			
ANALYSIS				<input type="checkbox"/> OUTSIDE SHOPS			
BY: _____				DATE: _____			
PRELIM. _____				Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000			
FINAL _____							

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

PRINT DIVISION  
 ECIL FROM 501  
 LBL 71111111  
 MAY 1 3 13 11 1995

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME - DESCRIPTION - INSTRUCTIONS
1		2AA4594	30ea	SHIELD WIRE MOUNT, RIGHT, G-10
Material in form of printed circuit board will be supplied by "STAR" group (Jon Wirth/Jim Boehm)				

JOB ORDER







ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date: 4/28/95 Account No. 8052-26 Serial No. 034266  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: J. Boehm Ext. 6500 Refer Questions To: J. Bercovitz Ext. 5833  
 Job Requested By: (Client) J. Bercovitz Ext. 5833  
 Design Check By: (Engineer Responsible) \_\_\_\_\_ Ext. \_\_\_\_\_  
 Production Check By: J. Mehm Date 5-1-95 Authorized By: \_\_\_\_\_ Date \_\_\_\_\_  
 Job Description: STAR  
 Residual Risks Accepted By: \_\_\_\_\_

WORK DISTRIBUTION							
CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	DWGS.
MECH. ENG.				MECH. SHOP OFF.	2	2	2
MECH. TECH. OFF.				ASS'Y SHOP			
SHOP 25				MACH. SHOP	34		
SHOP 71				PAINT SHOP			
SHOP				SHEET METAL			
SHOP				WELDING SHOP			
ELECT. ENG.				C&M OFFICE			
COORDINATING				CARPENTERS			
DRAFTING				ELECTRICIANS			
ELECT. FAB.				LABORERS			
ELECT. INSTALL				MAINT. TECHS			
ELECT. MAINT.				PAINTERS			
ELECT. Q.A.				PLUMBERS			
OPER. CHECK							
TECH. SUPP.				TOTAL HRS	36	AT	65 HR.
ELEC-MECH. 80				LABOR	\$	2,340.-	
				MATERIAL	\$		
SAFETY SHOPS				TOTAL	\$	2,340.-	

INNER SECTOR WIRE MOUNTS  
 GATED GRID W/MOUNT, R & L

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	J. WIRTH	70	ASSY	5901	6/19/95
ASSEMBLY					

REFERENCE DISTRIBUTION				PRINTS	
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.	
R. WELLS	70A	3307	1		
J. BERCOVITZ	"	"	1		
J. BOEHM	"	"	1	2	
J. WIRTH	77	ASSY	1	2	

SAFETY/ENVIRONMENTAL ANALYSIS BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PRELIM. \_\_\_\_\_  
 FINAL \_\_\_\_\_

FABRICATION:  
 LBL SHOPS  
 OUTSIDE SHOPS  
 Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

PRINT DATE: MAY 1 3 10 1  
 MECH. ENGR. [unclear]

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME	DESCRIPTION	INSTRUCTIONS
1		24A 4004	3000		GATED GRID WIRE MOUNT, RIGHT	
2		24A 4014	3000		GATED GRID WIRE MOUNT, LEFT	
Material, (#24A 4023 Extrusion) will be supplied by "STAR" Group (for Wirth)						

JOB ORDER







ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 6/28/95 Account No. 8052-24 Serial No. 034268  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: J. Boehm 6506 Ext. Boehm Refer Questions To: Berovitz Ext. Berovitz  
 Job Requested By: (Client) J. Berovitz Ext. 5833  
 Design Check By: (Engineer Responsible) \_\_\_\_\_ Ext. \_\_\_\_\_  
 Production Check By: J.P. Mehm Date 5-1-95 Authorized By: [Signature] Date MAY 1, 95  
 Job Description: STAR Residual Risks Accepted \_\_\_\_\_  
 By: \_\_\_\_\_

INNER SECTOR W1 MNTS  
ANODE W1 MNT, RIGHT

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	<u>J. WIRTH</u>	<u>77</u>	<u>ASSY</u>	<u>5901</u>	<u>6/19/95</u>
ASSEMBLY					

REFERENCE DISTRIBUTION		PRINTS		
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.
<u>R. WELLS</u>	<u>70A</u>	<u>3307</u>	<u>1</u>	<u>-</u>
<u>J. BERCOVITZ</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>-</u>
<u>J. BOEHM</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>2</u>
<u>J. WIRTH</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>2</u>

WORK DISTRIBUTION						
CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	EST. HRS.	PRINTS J.O.	DWGS.
MECH. ENG.				<u>1</u>	<u>2</u>	<u>2</u>
MECH. TECH. OFF.						
SHOP 25				<u>20</u>		
SHOP 71						
SHOP						
SHOP						
ELECT. ENG.						
COORDINATING						
DRAFTING						
ELECT. FAB.						
ELECT. INSTALL						
ELECT. MAINT.						
ELECT. Q.A.						
OPER. CHECK						
TECH. SUPP.						
ELEC-MECH. 80						
SAFETY SHOPS						
SAFETY/ENVIRONMENTAL						
ANALYSIS						
BY: _____						
DATE: _____						
PRELIM. _____						
FINAL _____						

TOTAL HRS 21 AT 65 HR.  
 LABOR \$ 1,365.-  
 MATERIAL \$ \_\_\_\_\_  
 TOTAL \$ 1,365.-

FABRICATION:  
 LBL SHOPS  
 OUTSIDE SHOPS

Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

PRINT DIVISION  
 11 3 10 AM '95

JOB ORDER

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME	DESCRIPTION	INSTRUCTIONS
<u>1</u>		<u>24A3954</u>	<u>30ea</u>	<u>ANODE W1 MNT, RIGHT</u>		
						<u>Material will be supplied by</u>
						<u>"STAR" Group (for Wirth)</u>









I.S. MATL

April 26, 1995

University of California  
Lawrence Berkeley Lab  
#1 Cyclotron Rd.  
Berkeley, CA

Attn: Mr. Doug Morton  
Mechanical shop - 486-5179

Dear Doug:

Persuant to our telephone conversation of 4/24/95, our delivery on the following material will be approximately June 5, 1995. We are expecting material to arrive the last week in May.

<del>26 Pcs.</del>	3.500	6061T651 Plt.	25.250 x 27.500	\$635/Ea.	= \$17,145.00
27 PCS			+.030 Cut Tolerance		
			-.000		

I will need a P.O. number from you as soon as possible to allocate the material for you.

If you have any questions, please call at your convenience.

Yours very truly,

Bill Tomlin

BT:jk



Buys  
FYI



Lawrence Berkeley Laboratory  
1 Cyclotron Road Berkeley, California 94720  
(415) 486-4000 • FTS 451-4000

FACSIMILIE TRANSMITTAL

PURCHASING

FAX (510) 486-4380

TO: Rich W

DATE: 3/28/95

COMPANY: LBC

FAX: 7105

NUMBER OF PAGES INCLUDING THIS PAGE: \_\_\_\_\_

\*\*\*\*\*

FROM: [Signature]

PHONE: (510) 486-4512

MESSAGE:

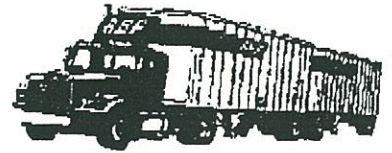
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Committed to Quality

# ABF Freight System, Inc.

## Rate Quotation



Rate Quote 153 950327.1653-17

Attention: ATTN  
Date: 03/27/95

Shipper:

HOUSTON, TX 77033

Acct: 000000  
Term: 270 Direct

Consignee: LAWRENCE LIVERMORE LABS  
BERKELEY, CA 94720

Acct: 014353  
Term: 153 Direct

Advertised LTL Service: 5 Days (Excluding Sat, Sun and Holidays)

Payment Terms: Collect Tariff: ABF504

-Description-	Class	--Weight--	-Rate-	--Charge--
ALUMINUM BAR PLATES	CL60	2150	3245	697.68
Totals		2150		697.68

Thank you for calling ABF. Pickup arrangements may be made by contacting ABF at 713-644-0585.

Note: This quote is based on information you provided. The actual charges will be determined by actual shipment characteristics and any special services applicable to the shipment.

703/

7105



REQUESTER <b>BERCOVITZ</b>	BLDG. & ROOM <b>70A 3307</b>	DELIVER TO: <b>DR HOFFMANN</b>	BLDG. ROOM NOTIFY	EXTENSION	HOLD FOR
APPROVED BY <b>BERCOVITZ</b>	ACCOUNT NO. <b>8052-24-1</b>	AMOUNT OF P.O. <b>27,424.80</b>	STAT. CODE <b>1812200</b>	REQ. NO. <b>1187 75</b>	DEPT. I.D./J.O.

SUBMIT CORRESPONDENCE/QUESTIONS TO BUYER:		<input type="checkbox"/> 1 CYCLOTRON RD., BERKELEY, CALIF. 94720	<input type="checkbox"/> BOX 5012 LIVERMORE, CALIF. 94550
BUYER <b>BALL</b>	CODE <b>238</b>	ORDER NO. <b>5956402</b>	SELLER CODE <b>ELM</b>
RATED ORDER	CERT. UNDER D.P.A.S. REG.	This is a rated order certified for national defense use, and you are required to follow all the provisions of the Defense Priorities and Allocations System regulation (15 CFR Part 350). TERMS: (AS CODED)	

TO THE TRIDENT CO  
3101 LONGHORN BLVD  
AUSTIN TEXAS 78759

**UNIVERSITY OF CALIFORNIA**  
FOR CONTRACT NO. W-7405-ENG. 48  
OR CONTRACT NO. DE-AC03-76SF0098  
WITH THE DEPARTMENT OF ENERGY  
PURCHASE ORDER COPY 3

SHIP TO  
SAB BELOW

To: Requisitioning Department  
USE - INFORMATION COPY  
DISPOSITION - DESTROY

DO NOT CONTACT SELLER  
FOR INFORMATION CALL PURCHASING DEPT.  
BERKELEY EXT. 4571, OR LIVERMORE EXT. 2-9548

CONFIRMING TELEPHONED ORDER TO TOM SHUGART ON 02/1/95 DO NOT DUPLICATE

SHIP VIA (as coded) 1. PICKUP 2. PARCEL POST 3. UPS 4. FEDERAL EXP. 1 5.	5. MOTOR FREIGHT 6. AIR FREIGHT 7. AIR PARCEL POST 8. FEDERAL EXP. 2 9. AIR FRT FORWARDER	TRANSPORTATION TERMS (as coded) 1. ACCOUNT OF UNIVERSITY SEE ARTICLE V ON REVERSE 2. ACCOUNT OF SELLER PREPAID 3. SEE BODY OF ORDER 4. SHIPPING POINT <b>AUSTIN, TEXAS</b>	F.O.B. (as coded) 1. DESTINATION 2. SHIPPING POINT 3. SHIP PT. FREIGHT ALLOWED 4.
---	---	---	---

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE	PROMISED DEL TO CARRIER
THE TRIDENT CO., HEREIN AND ON THE REVERSE HEREOF CALLED "SELLER", AGREES TO FURNISH TO UNIVERSITY'S LAWRENCE BERKELEY LABORATORY, HEREIN AND IN ATTACHMENTS HERETO CALLED "UCLBL", THE FOLLOWING IN STRICT ACCORDANCE WITH THE TERMS, CONDITIONS AND PROVISIONS OF THIS ORDER:						
1		ALUMINUM PLATE .5THK X 36" X 51" LG <i>Missing</i>	40 EA	237.00 EA	9,480.00	02/23/95
2		ALUMINUM PLATE .5THK X 33" X 48" LG	40 EA	221.90 EA	8,876.00	02/23/95
3		ALUMINUM PLATE .5THK X 6" X 32" LG	80 EA	42.20 EA	3,376.00	02/23/95
4		ALUMINUM PLATE .3THK X 6" X 48" LG	80 EA	45.71 EA	3,656.80	02/23/95
5		ALUMINUM PLATE .75THK X 1" X 48" LG	80 EA	12.35 EA	988.00	02/23/95
6	<i>Aug</i>	ALUMINUM PLATE .25THK X 1.5" X 36" LG	80 EA	6.25 EA	500.00	02/23/95
7	<i>Aug</i>	ALUMINUM PLATE .25 THK X 1.5" X 48" LG	80 EA	6.85 EA	548.00	02/23/95
					27,424.80	

- CONTINUED ON PAGE 2 -

The Terms and Conditions On The Reverse Side  
Constitute A Part Of This Order

Authorized by \_\_\_\_\_



REQUESTER <b>WEIDENBACH</b>	BLDG. & ROOM <b>10-257C</b>	DELIVER TO: <b>SEE ATTACHED</b>	BLDG. ROOM NOTIFY	EXTENSION	HOLD FOR																		
APPROVED BY <b>BERCOVITZ</b>	ACCOUNT NO. <b>3052-24-1</b>	AMOUNT OF P.O. <b>5,144.00</b>	STAT. CODE <b>1812200</b>	REQ. NO. <b>4795 89</b>	DEPT. I.D./J.O.																		
SUBMIT CORRESPONDENCE/QUESTIONS TO BUYER: <input type="checkbox"/> 1 CYCLOTRON RD., BERKELEY, CALIF. 94720 <input type="checkbox"/> BOX 5012 LIVERMORE, CALIF. 94550																							
BUYER <b>HALL 238</b>	CODE <b>3034532</b>	ORDER NO.	SELLER CODE	DATE <b>03/29/95</b>	FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER.																		
RATED ORDER	CERT. UNDER D.P.A.S. REG.	This is a rated order certified for national defense use, and you are required to follow all the provisions of the Defense Priorities and Allocations System regulation (15 CFR Part 350).			TERMS: (AS CODED)																		
<table border="0"> <tr> <td>O - 1/2 10TH &amp; 25TH</td> <td>3 - 1% 30 DAYS</td> </tr> <tr> <td>1 - 1/2 10 DAYS</td> <td>F - 2% 10TH &amp; 25TH</td> </tr> <tr> <td>A - 1/2 15 DAYS</td> <td>4 - 2% 10TH PROX.</td> </tr> <tr> <td>B - 1/2 20 DAYS</td> <td>G - 2% 15TH</td> </tr> <tr> <td>C - 1% 10TH &amp; 25TH</td> <td>5 - 2% 10 DAYS</td> </tr> <tr> <td>2 - 1% 10 DAYS</td> <td>H - 2% 20 DAYS</td> </tr> <tr> <td>3 - 1% 10TH PROX.</td> <td>6 - 2% 30 DAYS</td> </tr> <tr> <td>D - 1% 15TH</td> <td>7 - NET 30 DAYS</td> </tr> <tr> <td>E - 1% 20 DAYS</td> <td>8 - AS SHOWN</td> </tr> </table>						O - 1/2 10TH & 25TH	3 - 1% 30 DAYS	1 - 1/2 10 DAYS	F - 2% 10TH & 25TH	A - 1/2 15 DAYS	4 - 2% 10TH PROX.	B - 1/2 20 DAYS	G - 2% 15TH	C - 1% 10TH & 25TH	5 - 2% 10 DAYS	2 - 1% 10 DAYS	H - 2% 20 DAYS	3 - 1% 10TH PROX.	6 - 2% 30 DAYS	D - 1% 15TH	7 - NET 30 DAYS	E - 1% 20 DAYS	8 - AS SHOWN
O - 1/2 10TH & 25TH	3 - 1% 30 DAYS																						
1 - 1/2 10 DAYS	F - 2% 10TH & 25TH																						
A - 1/2 15 DAYS	4 - 2% 10TH PROX.																						
B - 1/2 20 DAYS	G - 2% 15TH																						
C - 1% 10TH & 25TH	5 - 2% 10 DAYS																						
2 - 1% 10 DAYS	H - 2% 20 DAYS																						
3 - 1% 10TH PROX.	6 - 2% 30 DAYS																						
D - 1% 15TH	7 - NET 30 DAYS																						
E - 1% 20 DAYS	8 - AS SHOWN																						

TO  
**ALLIED METALS INC**  
**P.O. BOX 253829**  
**2220 CANADA DRY**  
**HOURSON TEXAS 77223-0220**

**UNIVERSITY OF CALIFORNIA**  
**FOR CONTRACT NO. W-7405-ENG. 48**  
**OR CONTRACT NO. DE-AC03-76SF00098**  
**WITH THE DEPARTMENT OF ENERGY**  
**PURCHASE ORDER COPY 4**

SHIP TO  
**SEE BELOW**

To: Registration Department  
 USE - INFORMATION COPY

DO NOT CONTACT SELLER  
 FOR INFORMATION CALL PURCHASING DEPT.  
 BERKELEY EXT. 4571, OR LIVERMORE EXT. 2-9548.

CONFIRMING TELEPHONED ORDER TO RAY ON 03/28/95 DO NOT DUPLICATE

SHIP VIA (as coded) 1. PICKUP 2. PARCEL POST 3. UPS 4. FEDERAL EXP. 1 <b>3</b>	5. MOTOR FREIGHT 6. AIR FREIGHT 7. AIR PARCEL POST 8. FEDERAL EXP. 2 9. AIR FRT FORWARDER	TRANSPORTATION TERMS (as coded) 1. ACCOUNT OF UNIVERSITY SEE ARTICLE V ON REVERSE 2. ACCOUNT OF SELLER PREPAID 3. SEE BODY OF ORDER SHIPPING POINT <b>HOUSTON, TEXAS</b>	F.O.B. (as coded) 1. DESTINATION 2. SHIPPING POINT 3. SHIP PT. FREIGHT ALLOWED 4.
---	---	---	---

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE	PROMISED DEL TO CARRIER
1		RECT. BAR: 0.5" X 3.0" X 32.25" TOL. ON LENGTH PLUS 1/4, MINUS .000.	80 EA	21.40 EA	1,712.00	03/31/95
2		RECT. BAR: 0.5" X 6.0" X 48.25" TOL. ON LENGTH ABOVE PLUS 1/4, MINUS .000.	80 EA	32.00 EA	2,560.00	03/31/95
3		RECT BAR: 0.75" X 1.00" X 40" TOL. ON LENGTH PLUS 1/8, MINUS .000.	80 EA	10.00 EA	872.00	03/31/95
					5,144.00	

SHIP TO:  
 -----  
**G.W. HOFFMANN**  
**DEPARTMENT OF PHYSICS**  
**ROBERT LEE MOORE HALL 3.236**  
**26TH STREET AND SPEEDWAY**  
**UNIVERSITY OF TEXAS AT AUSTIN**  
**AUSTIN, TEXAS 78712**  
**TEL: 512/471-1709**

---CONTINUED ON PAGE ---

The Terms and Conditions On The Reverse Side  
 Constitute A Part Of This Order



AUSTIN BOLT COMPANY  
 2028 CENTIMETER CIRCLE  
 TEL#512-836-1611  
 AUSTIN TX 78758

1334  
 UC LAWRENCE BERKLEY LAB  
 ACCOUNTS PAYABLE DEPT.  
 P.O. BOX 528  
 BERKLEY CA 94701

INVOICE TO:

UT DEPT OF PHYSICS  
 G.W. HOFFMANN R.L.M. HALL 3.206  
 26TH ST. & SPEEDWAY  
 AUSTIN TX 78712

PAGE	ORDER NUMBER
1	057435-00

OPR.	SIS	CONTACT	TERMS	DEPOSIT	DATE SHIPPED	TOTAL FREIGHT
ACM	HOUSE	J. MEHREN	NET 30		3/15/95	
P.O. NUMBER	DATE OF ORDER	DATE WANTED	FO.B.	SHIP VIA	FREIGHT TERMS	
6404464	03/09/95	03/09/95		DEL-COMLETE		

ITEM NUMBER/DESCRIPTION	LINE	QTY. ORD.	QTY. SHPD.	QTY. B.O.
50NWSFZ 1/2 FLAT WASHER PLATED	001	300	300	
25NWSFZ 1/4 FLAT WASHER PLATED	002	2600	2600	
50C75HCS5Z 1/2-13 X 3/4 HEX CAP SCREW GR 5 PLATED	003	300	300	
25C75HCS5Z 1/4-20 X 3/4 HEX CAP SCREW GR 5 PLATED	004	800	800	
25C125HCS5Z 1/4-20 X 1/4 HEX CAP SCREW GR 5 PLATED	005	700	700	
25C75SKCS 1/4-20 X 3/4 SOCKET CAP SCREW	006	1100	1100	
25C125KCS 1/4-20 X 1/4 SOCKET CAP SCREW	007	300	300	
25N250BHLZ 1/4 X 2 1/2 HEX LAG SCREW PLATED	008	500	500	

CONTINUED

RECEIVED BY

PREPARED BY

KEGS

CARTONS

WEIGHT

PACK LIST

03/09/95 15:41:39

SOLD TO: 510-486-5524  
 SHIP TO: 512-471-1769

Warehouse 01

UNIT PRICE/LOCATION	EXTENSION/ QTY. AVAILABLE
5.39 C	16.17 6813
1.07 C	27.82 21220
13.78 C	41.34 318
3.55 C	28.40 3626
4.35 C	30.45 5378
9.24 C	101.64 741
11.76 C	35.28 363
6.72 C	33.60 587



Order # 0325689	Cust. Ord. # 5956402	Req. Ship Date 03/09/95	Actual Ship Date 3-14-95	Deliver Via OUR TRUCK	Date Printed: 3/06/95
Outside Salesman DAVID CANNON	Inside Salesman T. SHUGART	FOB. Point DESTINATION	Freight Terms PREPAY	Order Type: SALES ORDER	Time Printed: 13:39:40
S 0330205 PH#: (510)486-4513 L U.T. OF CA., LAWRENCE BERKELEY LAB D P.O. BOX 528 O BERKELEY CA 94701			SHIP TO U.T. OF TEXAS DEPT., OF PHYSICS ROBERT LEE HALL 3.206 26TH & SPEEDWAY ATTN: G.W. HOFFMAN AUSTIN TX 78712		Entry Date: 03/06/95
Receiving Hours From: 08:00 To: 17:00			Total Ship Weight: 6		

Description	QTY ORDERED	U/M	QTY SHIPPED
01 ITEM CODE: 27043 4 X 3 X 3/8 X 24"6061-T6 ANGLE WIDTH 4.0000 LENGTH 24.0000 COLOR CODE: LIGHT BLUE WT/LB: COLOR CODE: LIGHT BLUE	1	EA	1
	6		1

THE TRIDENT COMPANY  
METAL DISTRIBUTORS

*Please cut*

PACK INST: STANDARD PACKING



THE TRIDENT COMPANY  
 METAL DISTRIBUTORS  
 3101 LONGHORN BLVD. #103  
 AUSTIN, TX 78759

PAGE PACKING LIST 1  
 2/21/95  
 17:09:25

Order # 0325206  
 Cust. Ord. # 5955402  
 Reg. Ship Date 02/24/95  
 Actual Ship Date 3-9-95  
 Deliver Via TRUCK  
 Date Printed: 2/21/95  
 Time Printed: 17:09:25

Outside Salesman DAVID CANNON  
 Inside Salesman T. SHUGART  
 FOB Point DESTINATION  
 Freight Terms PREPAID  
 Order Type SALES ORDER  
 Entry Date: 02/21/95

S O L D TO  
 0330205 PH#: (510) 486-4513  
 U.T. OF CA., LAWRENCE BERKELEY LAB  
 1 CYCLOTRON ROAD CA 94720  
 S H I P T O  
 U.T. OF TEXAS DEPT., OF PHYSICS  
 ROBERT LEE HALL 3.206  
 26TH & SPEEDWAY ATTN: C.W. HOFFMAN  
 AUSTIN TX 78712  
 Receiving Hours From: 08:00 To: 17:00

Description  
 QTY. ORDERED U/M QTY. SHIPPED

01 ITEM CODE: ~~4118~~ 41184  
 1/2 X 36 X 51 6061-T651 LENGTH: 51.0000  
 WIDTH 36.0000 WT/LB: 3718  
 COLOR CODE: DARK BLUE

40 EA  
 3718  
 22 ea



3-9-95  
*[Handwritten signature]*

PACK INST. STANDARD PACKING



Order # 0325690	Cust. Ord. # 5955402	Req. Ship Date 03/09/95	Actual Ship Date 3-10-95	Deliver Via OUR TRUCK	Date Printed: 3/05/95
Outside Salesman DAVID CANNON	Inside Salesman T. SHUGART	FOB Point DESTINATION	Freight Terms PREPAY	Time Printed: 13:39:41	Order Type: SALES ORDER
Entry Date: 03/06/95				Receiving Hours From: 08:00 To: 17:00	

SOLD TO 0330205 PH#: (510)486-4513 U.T. OF CA., LAWRENCE BERKELEY LAB P.O. BOX 528 BERKELEY CA 94701	SHIP TO U.T. OF TEXAS DEPT., OF PHYSICS ROBERT LEE HALL 3.206 26TH & SPEEDWAY ATTN: G.W. HOFFMAN AUSTIN TX 78712
--	--

Description	QTY. ORDERED	U/M	QTY. SHIPPED
01 ITEM CODE: 27010 1-1/2 X1-1/2 X 1/4 X 36"6061-T6 ANG	80	EA	80 <i>PC</i>
WIDTH 1.5000 COLOR CODE: LIGHT BLUE COLOR CODE: LIGHT BLUE			
02 ITEM CODE: 27010 1-1/2 X1-1/2 X 1/4 X 49"6061-T6 ANG	80	EA	80 <i>PC</i>
WIDTH 1.5000 COLOR CODE: LIGHT BLUE COLOR CODE: LIGHT BLUE			

*M. GAMBORA 5-13-95*

259/PANTRY  
METAL DISTRIBUTORS



THE TRIDENT COMPANY  
METAL DISTRIBUTORS  
3101 LONGHORN BLVD. #103  
AUSTIN, TX 78759

PAGE PACKING LIST

Order # 0325866

Cust. Ord. # 5956402

Req. Ship Date 03/10/95

Actual Ship Date 3-15-95

Deliver Via OUR TRUCK

Date Printed: 3/09/95  
Time Printed: 8:52:51

Outside Salesman  
DAVID CANNON

Inside Salesman  
T. SHUGART

FOB Point  
DESTINATION

Freight Terms  
PREPAY

Order Type: SALES ORDER  
Entry Date: 03/09/95

0330205 PH# (510)486-4513  
U.T. OF CA., LAWRENCE BERKELEY LAB  
P.O. BOX 528  
BERKELEY CA 94701

SHIPP TO  
U.T. OF TEXAS DEPT., OF PHYSICS  
ROBERT LEE HALL 3.206  
26TH & SPEEDWAY ATTN: G.W. HOFFMAN  
AUSTIN TX 78712

Total Ship Weight: 1673  
Receiving Hours From: 08:00 To: 17:00

Description

QTY ORDERED U/M

QTY SHIPPED

01 ITEM CODE: 41148  
1/2 X 36 X 51 6061-1651  
WIDTH 36.0000 LENGTH 51.0000  
COLOR CODE: DARK BLUE WT/LB:

10 EA  
1673

18ea

THE TRIDENT COMPANY  
METAL DISTRIBUTORS

M. SIMMONS 3-13-95

PACK INST: STANDARD PACKING



# BERGER/AUSTIN

## AGENT FOR ALLIED VAN LINES

---

### FAX TRANSMITTAL COVER SHEET

FOLLOWING ARE 4 PAGE(S) INCLUDING COVER SHEET.

TO: R. P. WELLS  
LAWRENCE BERKELEY LAB  
70 A - 3307

DATE: 4-7-95

COMMENTS: PAST DUE INVOICE, CUST. STATEMENT,  
AND BILL OF LADING WITH FREIGHT BILL.  
MAIL PAYMENT ATTN: SOPHIA DORN

THANK YOU

S.D.

IF YOU HAVE ANY QUESTIONS OR CONCERNS, PLEASE CALL (512) 834-7777  
OR (800) 580-2374 OR (800)876-2374.

BERGER TRANSFER & STORAGE  
3206 INDUSTRIAL TERRACE  
AUSTIN, TX 78758  
FAX: (512)834-0539

BEST REGARDS,

*Sophia Dorn*

SOPHIA DORN  
COLLECTIONS MANAGER



# QUOTATION



## REYNOLDS ALUMINUM SUPPLY COMPANY

A Division of  
REYNOLDS METALS COMPANY

LAWRENCE LIVERMORE LAB

DATE 4/24/95

ATTN:

Doug

FAX  
PH

510/486-5179  
486-5904

("Buyer")

SUBJECT: YOUR INQUIRY

REYNOLDS REF. NO.

Reynolds Aluminum Supply Company ("Seller") is pleased to submit its quotation to Buyer as follows:

ITEM	DESCRIPTION	QUANTITY	UNIT PRICE	AMOUNT
------	-------------	----------	------------	--------

6061-T651

3 1/2 x 2.5 1/4 x 27 1/2

27plu  
(6553 lbs)

\$ 2.63/#

± .030

NOTE

- Delivery August
- Price - IN - EFFECT AT TIME OF DELIVERY.

17,234.39

THIS QUOTATION IS SUBJECT TO CHANGE OR CANCELLATION AT ANY TIME WITHOUT NOTICE AND SHOULD THEREFORE BE RECONFIRMED PRIOR TO PLACEMENT OF ORDER.

PACKING:

ESTIMATED SHIPMENT AFTER RECEIPT OF ORDER:

PAYMENT TERMS (FROM INVOICE DATE) SUBJECT TO APPROVAL OF TREASURER:

DELIVERY TERMS: (See Para. 11 Reverse Side);

END USE:

Should you have any questions concerning this quotation or should you wish to place an order please contact the undersigned.

DAVID KUIKEN

TERMS AND CONDITIONS PRINTED ON REVERSE SIDE OF THIS SHEET, AND ANY ATTACHMENT HERETO, CONSTITUTE A PART OF THIS PROPOSAL.



INVOICE - STATEMENT



Make Checks Payable & Remit to:  
BERGER/AUSTIN  
3206 INDUSTRIAL TERRACE BLVD  
AUSTIN, TX 78758  
(800) 580-2374

Rep #: 376993  
In #: 940066113  
Date: 12/08/94

**INVOICE TO:**  
ATTN: R.P. WELLS  
LAWRENCE BERKELEY LAB  
1 CYCLOTRON RD. BLDG 77  
ASSEMBLY AREA  
BERKELEY, CA 94720

**CUST #:** 000027022  
**TARIFF:**  
**LOAD DATE:** 11/22/94  
**P.O. #:**

**B/L:** 1361032  
**TARIFF SECT:**  
**DELY DATE:** 11/30/94  
**Contract #:** 5500

**SHIPPER:**  
HOFFMANN, DR. JERRY  
U.T. PHYSICS DEPT.  
BLDG 3.206  
24TH & SPEEDWAY  
AUSTIN, TX 78712

**CONSIGNEE:**  
LAVRENCE BERKELEY LAB  
1 CYCLOTRON RD BLDG 77  
ASSEMBLY AREA  
BERKELEY, CA 94720

**TRANSPORTATION CHARGES**    **MILES:** 1718    **TOTAL WEIGHT:** 560    **AS WEIGHT:** 560    **CHARGES**

**DESCRIPTION**  
TRANSPORTATION CHARGES    423.76

**ACCESSORIALS**  
NISC CHARGES    LOCAL P/U CHGS.    150.00

**II ACCESSORIALS**    150.00

**Total Charges Due**    573.76

Late Payment Charges After 30 Days    10.00

**Total Charges Due With Late Charge**    583.76

**PAST DUE  
FINAL NOTICE**





**BERGER****CUSTOMER - STATEMENT**

Please Remit To:  
 BERGER/AUSTIN  
 3206 INDUSTRIAL TERRACE BLVD  
 AUSTIN, TX 78758

LAWRENCE BERKELEY LAB  
 1 CYCLOTRON RD. BLDG 77  
 ASSEMBLY AREA  
 BERKELEY, CA 94720

CUSTOMER #: 27022  
 DATE: 03/24/95  
 PAGE: 1

A Review of Your Account Indicates the Following Invoice(s) are Over 30 Days:

Shipper Name: HOFFMANN, DR. JERRY

Reference	Invoice #	Date	0 - 30	31 - 60	61 - 90	Over 90	Balance
BL1361032	940066113	12/08/94				573.76	573.76
Total for Shipper:							573.76

Total Due Over 30 Days: 573.76

Should You Require Further Information, Please Contact the Credit Department at  
~~(800) 678-3999~~

**We Appreciate Your Business... Thanks!** 

AGENT ALLIED VAN LINE



**BERGER****CUSTOMER STATEMENT**

Please Remit To:  
 BERGER/AUSTIN  
 3206 INDUSTRIAL TERRACE BLVD  
 AUSTIN, TX 78758

LAURENCE BERKELEY LAB  
 1 CYCLOTRON RD. BLDG 77  
 ASSEMBLY AREA  
 BERKELEY, CA 94720

CUSTOMER #: 27022  
 DATE: 02/28/95  
 PAGE: 1

A Review of Your Account Indicates the Following Invoice(s) are Over 30 Days:

Shipper Name: HOFFMANN, DR. JERRY

Reference	Invoice #	Date	0 - 30	31 - 60	61 - 90	Over 90	Balance
BL1361032	940066113	12/08/94			573.76		573.76
						Total for Shipper:	573.76
							10.00
Total Due Over 30 Days:					573.76		<u>583.76</u>

Should You Require Further Information, Please Contact the Credit Department at  
 (800) 678-3980

ATTN: John Mehren

From Russ Weus

**We Appreciate Your Business... Thanks!** 

AGENT ALLIED VAN LINE



REQUESTER <b>S. CHOW</b>	BLDG. & ROOM <b>25A - 131</b>	DELIVER TO: <b>S. CHOW</b>	BLDG. ROOM <b>25A - 119</b>	NOTIFY <b>STEVEN CHOW</b>	EXTENSION <b>5948</b>	HOLD FOR/J.O.
APPROVED BY <i>Russell W...</i>	ACCOUNT NO. <b>8052-24</b>	AMOUNT OF P.O.	STAT. CODE	REQ. NO. <b>139350</b>		

**UNIVERSITY OF CALIFORNIA**  
**PURCHASE REQUISITION**  
 FOR CONTRACT NO. DE-AC03-76SF00098  
 WITH THE  
 DEPARTMENT OF ENERGY

AUTHORIZATION	\$10,000 <input type="checkbox"/>	\$50,000 <input type="checkbox"/>	OVER <input type="checkbox"/>
BUYER	CODE	ORDER NO.	REQ. DATE <b>3/30/95</b>
			DATE NEEDED <b>05/11/95</b>

COST NOT TO EXCEED <b>\$4,050.00</b>	TERMS:
---	--------

**SHADED AREA FOR PURCHASING USE ONLY.**

SELLER \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Placed \_\_\_\_\_ Date \_\_\_\_\_ Contact \_\_\_\_\_

HAZARD REVIEW - Enter one of the letters in the box below.

<input checked="" type="checkbox"/> <b>N.</b>	C. Chemical	L. Laser	S. Service Contracts
	R. Radiological	M. Microwave	O. Other Hazards
	B. Biological	X. X-Ray	N. No Hazards

RETAIN LAST COPY SEND ALL OTHER COPIES TO PURCHASING

DATE MATERIAL RECEIVED	PACKING LIST NO.
DATE OF INSPECTION	RECEIVAL & INSPECTION CERTIFIED BY.
CARRIER	DELIVERY RECEIPT NUMBER

SHIP BY	SHIP FROM	F.O.B.	PROMISED DELIVERY TO CARRIER
---------	-----------	--------	------------------------------

ITEM NO.	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
	<b>STAR FABRICATION (MULTILAYER)</b>				
	<b>PRINTED WIRING BOARDS TO BE FABRICATED</b>				
	<b>IN STRICT ACCORDANCE WITH UC LBL</b>				
	<b>ENGINEERING INSTRUCTION # 139350</b>				
<b>1.</b>	<b>ANODE WIRE MOUNT BOARD / Outer Sector</b>	<b>2</b>			
	<b>A000890U1 REV. A</b>	<b>PANELS</b>			
	<b>ATTN.: KEN BEARD</b>				
	<b>ETCH-TEK, INC.</b>				
	<b>2455 BATES AVE.</b>				
	<b>CONCORD, CA 94520</b>				
	<b>(510) 671-9800</b>				
	<b>FAX: (510) 671-0151</b>				

REMARKS:

Authorized By \_\_\_\_\_ PURCHASING



**UNIVERSITY OF CALIFORNIA  
LAWRENCE BERKELEY LABORATORY**  
FOR CONTRACT NO. DE-AC03-76SF00098  
WITH THE DEPARTMENT OF ENERGY

Vendor: Austin Bolt Co  
2028 Centimeter Circle  
Austin TX 78758

SHIP TO:  
\*\*\* See Body of Order \*\*\*  
\*\*\* See Body of Order \*\*\*  
\*\*\* See Body of Order \*\*\*  
\*\*\* See Body of Order \*\*\*  
MAIL INVOICE IN DUPLICATE TO  
UNIVERSITY OF CALIFORNIA:  
UC Lawrence Berkeley Lab  
Accounts Payable Dept  
PO Box 528  
Berkeley CA 94701

**Purchase Order**

Purchase Order# 6404464 Page 1

This purchase order number MUST appear on all invoices, packing lists, cartons and correspondence related to this order.

Date of Order Buyer  
09-MAR-95 J MEHREN  
Revision Date Buyer

Customer Account Vendor No. Payment Terms Ship Via  
102804 Net 30 Days Best Way

Vendor Contact *Alan Morgan* F.O.B. Destination  
Requester / Deliver to WEIDENBACH, RICHARD C. FOR RESALE-State Sales Tax should not be charged, as the University holds State Sales Tax Permit SR CH 21-885970 for deliveries to Lawrence Berkeley Laboratory.

LINE	PART NUMBER/DESCRIPTION	DELIVERY DATE	QUANTITY	UNIT	UNIT PRICE	EXTENSION	TAX
<p>Ship to: G.W.Hoffmann, Dept. of Physics, UoT, Austin, TX. Send copy of packing list to: John Mehren at LBL.</p> <p>*** CONFIRMED TO: ALAN ON 08-MAR-95 -- DO NOT DUPLICATE!</p>							
1	Washer, Flat, STL, Plated, 1/2" ID. Washers are regular pattern.	20-MAR-95	3.0	HD	5.39	16.17	N
2	Washer, Flat, STL, Plated, 1/4" ID.		26.0	HD	1.07	27.82	N
3	Screw, Hx Hd STL, Plated, 1/2-13 UNC x 0.75" lg. Screws to be zinc plated only. All Hx Hd screws are grade 2 (grade 5 ok).		3.0	HD	13.78	41.34	N

**TOTAL:** Continued

The Terms and Conditions Attached  
Constitute A Part Of This Order

-Requester's copy-

Authorized by

*John R. Mehren*  
UNIVERSITY OF CALIFORNIA



**UNIVERSITY OF CALIFORNIA  
LAWRENCE BERKELEY LABORATORY**  
FOR CONTRACT NO. DE-AC03-76SF00098  
WITH THE DEPARTMENT OF ENERGY

**Vendor:** Austin Bolt Co  
2028 Centimeter Circle  
Austin TX 78758

**SHIP TO:**

\*\*\* See Body of Order \*\*\*  
\*\*\* See Body of Order \*\*\*  
\*\*\* See Body of Order \*\*\*  
\*\*\* See Body of Order \*\*\*

MAIL INVOICE IN DUPLICATE TO  
UNIVERSITY OF CALIFORNIA:

UC Lawrence Berkeley Lab  
Accounts Payable Dept  
PO Box 528  
Berkeley CA 94701

**Purchase Order**

Purchase Order# 6404464 Page 2

This purchase order number MUST appear on all invoices, packing lists, cartons and correspondence related to this order.

Date of Order Buyer

09-MAR-95 J MEHREN

Revision Date Buyer

Customer Account	Vendor No. 102804	Payment Terms Net 30 Days	Transportation Terms Acct. of Seller	F.O.B. Destination	Ship Via Best Way
------------------	----------------------	------------------------------	---	-----------------------	----------------------

Vendor Contact *Alan Morgan*  
Requester / Deliver to  
WEIDENBACH, RICHARD C.  
FOR RESALE- State Sales Tax should not be charged, as the University holds State Sales Tax Permit SR CH 21-835970 for deliveries to Lawrence Berkeley Laboratory.

LINE	PART NUMBER/DESCRIPTION	DELIVERY DATE	QUANTITY	UNIT	UNIT PRICE	EXTENSION	TAX
4	Screw, Hx Hd STL, Plated, 1/4-20 UNC x 0.75" Ig.		8.0	HD	3.55	28.40	N
5	Screw, Hx Hd STL, Plated, 1/4-20 UNC x 1.25" Ig.		7.0	HD	4.35	30.45	N
6	Screw, Hx Skt Hd, STL, 1/4-20 UNC x 0.75" Ig. All Hx Socket Hd screws are series 1960 (Black Oxide OK).		11.0	HD	9.24	101.64	N
7	Screw, Hx Skt Hd, STL, 1/4-20 UNC x 1.25" Ig.		3.0	HD	11.76	35.28	N
8	Bolt, Lag, Hx Hd STL, Plated, 1/4 x 2 1/2" Ig.		5.0	HD	6.72	33.60	N
9	Nut, Hx STL, Plated, 1/4-20 UNC.		7.0	HD	2.55	17.85	N

**TOTAL:** 332.55

The Terms and Conditions Attached  
Constitute A Part Of This Order

-Requester's copy-

Authorized by

*John R. Mehren*  
UNIVERSITY OF CALIFORNIA



**Cost or Effort Transfer**

To: Finance and Accounting

Date: January 31, 1995

From: Mary Clary

Division: Engineering

Ext: 4940

Please transfer the cost/effort shown below. The justification is:  
Transfer of effort dropouts to the correct accounts.

**Approvals:**

Up to \$2,000 or up to 50 hours

\$2,000 to \$30,000 or 50 to 750 hours

≥\$2000 for 4300, 4800, 8000 Accounts

\$30,000 and over or 750 hours and over

*[Signature]*  
1-31-95  
Division Administrator

Authorized Signature

Sponsored Research Officer

Division Director

Manager, FM/Budget

To Account	From Account	To Job Order No.	From Job Order No.	Exp. Type	Description to be Used in Detail Ledger	Dollar Amount	Trip, PO No., or Employee Surname	Employee Number	Payroll Acct.	Effort (specify hrs or wm)	Date of Original Entry
3614-13	3598-01			77	Labor	88.64	Groves	342732	9144-10	0.02 wm	Nov. '94
3614-13	3598-01			80	Support Burden	14.63			9144	0.02 wm	Nov. '94
3152-12	3598-01			77	Labor	155.87	Kleist	483575	9143-18	0.02 wm	Nov. '94
3150-99	3598-01			80	Support Burden	25.72			9143	0.02 wm	Nov. '94
3152-12	3598-01			77	Labor	111.56	Strelo	866357	9142-35	0.02wm	Nov. '94
3150-99	3598-01			80	Support Burden	18.41			9142	0.02 wm	Nov. '94
8052-24	3598-01			77	Labor	55.78	Converse	175425	9142-42	0.01 wm	Nov. '94
8052-24	3598-01			80	Support Burden	9.20			9142	0.01 wm	Nov. '94
<b>Totals</b>						<b>\$479.81</b>				<b>0.07wm</b>	

- Information must be provided in the same level of detail as originally recorded (e.g. Detail Ledger, Effort Report).
- Labor cost corrections must be accompanied by effort corrections.

CC: C.R. Adams, F.S. Goss, G.L. Petit, D.J. Rondeau, M.E. St. Hill, R. Wells

NOV D



Printed By: Russ Wells 1/18/95 4:10 PM  
From: vahe@microp.physics.ucla.edu (1/12/95)  
To: HHWieman@lbl.gov, Russ Wells  
CC:  
BCC:  
Priority: Normal

Page: 1

Date sent: 1/12/95 6:53 PM

Mail\*Link® SMTP

List of required VME equipment for Gating Grid Driver.

Hi Russ, here are the items we need to setup a VME development station for TPC gating grid driver hardware and its corresponding EPICS based control software: (most of the information that follows was obtained by consulting with Steve Lewis and from the vendors/catalogs).

- 1) 20 slot VME chassis, mono backplane (J1+J2), autochaining, 750 watts power supply dimensions: 9U\*84HP\*483  
Schroff part number 13890-485

7702

(this part number was given to me by Steve Lewis and it may not be valid since I was unable to locate it in the Schroff's current catalog, but you may mention to Schroff people that we want the same type of VME crate that was ordered by LBL by this P/N). (approximate cost \$4 k)

- 2) Motorola VME single board computer based on 68040 processor running at 33 MHz, with 8 Mbytes RAM. Motorola P/N MVME167-032.  
(cost \$5,495)
- 3) Motorola transition module for MVME167-032: P/N MVME712M.  
(cost \$395 )

Additionally we may need 2-3 VME modules (e.g., A/D, D/A and Digital I/O boards) but at this time we have not decided on this yet. Will let you know later.

Sincerely,  
Vahe



ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 1/18/95 Account No. 8052-24 Serial No. 334082  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: <u>R. Wells</u> Ext. <u>7925</u>	Refer Questions To: <u>←</u> Ext. _____	WORK DISTRIBUTION					
Job Requested By: (Client) <u>WIEMAN</u> Ext. <u>6953</u>	Design Check By: (Engineer Responsible) Ext. _____	CRAFT	EST. HRS.	PRINTS J.O. DWGS.	CRAFT	EST. HRS.	PRINTS J.O. DWGS.
Production Check By: <u>John R. Mehren</u> Date <u>23-JAN-95</u>	Authorized By: <u>Russell Wells</u> Date <u>1/18/95</u>	MECH. ENG.			MECH. SHOP OFF.		
Job Description: <u>STAR - TPC</u>	Residual Risks Accepted	MECH. TECH. OFF.			ASS'Y SHOP		
<u>SECTORS</u>	By: _____	SHOP 25			MACH. SHOP		
<u>GATING 6210 DRIVER</u>		SHOP 71			PAINT SHOP		
DELIVER TO: NAME	Bldg.	Rm.	Ext.	DUE DATE	SHOP		
PARTS <u>WELLS</u>	<u>70</u>	<u>314</u>	<u>7925</u>	<u>2/28/95</u>	SHOP		
ASSEMBLY					ELECT. ENG.		
REFERENCE DISTRIBUTION		PRINTS			COORDINATING		
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.	DRAFTING		
<u>WIEMAN</u>	<u>70A</u>	<u>3307</u>	<input checked="" type="checkbox"/>		ELECT. FAB.		
					ELECT. INSTALL		
					ELECT. MAINT.		
					ELECT. S.A.		
					OPER. CHECK		
					TECH. SUPP.		
					ELEC-MECH. 80		
					SAFETY SHOPS		
					SAFETY/ENVIRONMENTAL		
					ANALYSIS		
					BY: _____ DATE: _____		
					PRELIM. _____		
					FINAL _____		
					FABRICATION:		
					<input type="checkbox"/> LBL SHOPS		
					<input type="checkbox"/> OUTSIDE SHOPS		
					Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000		

JOB ORDER

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

Reg. No. 600561

PRINT DIVISION  
 MECH ENGR DEPT  
 LBL GERRITSEN  
 JAN 23 7 49 AM '95

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME - DESCRIPTION - INSTRUCTIONS
1		MOTOROLA MVME167-032	1	VME SINGLE BOARD COMPUTER, 68040, 33MHz, 8Mbytes RAM.
2		MVME712M	1	TRANSITION MODULE FOR ITEM 1
				MOTOROLA



ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 1/18/95 Account No. 8052-24 Serial No. 333083  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: R. WELLS Ext. 7925 Refer Questions To: ← Ext. \_\_\_\_\_

Job Requested By: (Client) Ext. 6953  
WIEMAN

Design Check By: (Engineer Responsible) Ext. \_\_\_\_\_

Production Check By: Date 23-JAN-95 Authorized By: Russell Wells Date 1/18/95

Job Description: STAR - TPC Residual Risks Accepted By: \_\_\_\_\_

SECTORS

GATING GRID DRIVER

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	<u>WELLS</u>	<u>70</u>	<u>314</u>	<u>7925</u>	<u>3/13/95</u>
ASSEMBLY					

REFERENCE DISTRIBUTION		PRINTS	
SEND COPIES TO:	Bldg.	Rm.	J.O. DWGS.
<u>WIEMAN</u>	<u>70A</u>	<u>3307</u>	<input checked="" type="checkbox"/>

SAFETY SHOPS

SAFETY/ENVIRONMENTAL ANALYSIS BY: \_\_\_\_\_ DATE: \_\_\_\_\_ PRELIM. \_\_\_\_\_ FINAL \_\_\_\_\_

WORK DISTRIBUTION					
CRAFT	EST. HRS.	PRINTS J.O.   DWGS.	CRAFT	EST. HRS.	PRINTS J.O.   DWGS.
MECH. ENG.			MECH. SHOP OFF.		
MECH. TECH. OFF.			ASS'Y SHOP		
SHOP 25			MACH. SHOP		
SHOP 71			PAINT SHOP		
SHOP			SHEET METAL		
SHOP			WELDING SHOP		
ELECT. ENG.			C&M OFFICE		
COORDINATING			CARPENTERS		
DRAFTING			ELECTRICIANS		
ELECT. FAB			LABORERS		
ELECT. INSTALL			MAINT. TECHS		
ELECT. MAINT.			PAINTERS		
ELECT. Q.A.			PLUMBERS		
OPER. CHECK					
TECH. SUPP.			TOTAL HRS AT HR.		
ELEC-MECH. 80			LABOR \$		
			MATERIAL \$		
			TOTAL \$ <u>4000-</u>		
			FABRICATION:		
			<input type="checkbox"/> LBL SHOPS		
			<input type="checkbox"/> OUTSIDE SHOPS		
			Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000		

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

Reg. No. 600562

PRINT DIVISION  
MECH ENGR DEPT  
LBL. REKEL  
JAN 23 7 49 AM '95

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUAN-TITY	NAME - DESCRIPTION - INSTRUCTIONS
1		<u>SCHROFF 13890-485</u>	1	<u>20 SLOT VME CHASSIS, MONO BACKPLANE, AUTOCHAINING, 750 WATT POWER SUPPLY</u>
				<u>NOTE: 6 WEEKS ARO</u>
				<u>CONTACT: MARVA (408) 370-2020</u>
				<u>LUSCOMBE ENGINEERING</u>
				<u>LOS GATOS, CA</u>

JOB ORDER













# Lawrence Berkeley Laboratory

University of California Berkeley, California 94720

(510) 486-4000 • FTS

April 12, 1995  
PM95-150

United States Department of Energy  
OAK Operations Office  
1301 Clay Street  
Oakland, CA 94612  
Attn: R. Gourley

Subject: Shipment to University of California, Los Angeles (Loan 9L950405)

Dear Ms. Gourley:

Russ Wells, of the STAR Project, with the Nuclear Sciences Division, has reviewed the Interim Guidelines for Control of High Risk Property, the Militarily Critical Technologies List, the NSG Trigger List, and the Interim Guidelines on Export Control and Nonproliferation to determine if any of the property he is loaning to UCLA was listed, and it was not. The property is not radioactive and does not present a nuclear proliferation concern.

The property is an MVME 167-032 single board computer and transition module manufactured by Motorola, and a 13890 485 20 slot VME chassis, mono backplane manufactured by Schroff and will be used by Vahe Ghazikhanian of the Department of Physics, UCLA, for use in the construction of the STAR TPC gated grid drivers and returned to LBL when the drivers are complete.

Mr. Wells has signed below indicating his review of the above mentioned documents and his verification that none of the property meet the criteria of the four documents.

Your expedited approval is greatly appreciated. Thank you.



Mr. Wells

4/14/95

Date

Sincerely,

Gavin M. Robillard  
Property Manager

GMR:ktl





### LOAN FILE SUMMARY

Date: 3/24/95

File No. 950405

PROPERTY LOANED BY

Division Nuclear Science

*Russ -*

Ext. 4453

Department/Group \_\_\_\_\_

*FAXED TO PROP.*

Employee Coordinating \_\_\_\_\_

*MGMT (TINA X. 6769)*

Ext. 7925

User Account Number \_\_\_\_\_

*3/24*

Method of Shipment \_\_\_\_\_

*JS*

PROPERTY LOANED TO

Person responsible for property Vane Ghazikhanian

Phone Number 310-825-1515

Fax 310-206-5668

Property Management Contact \_\_\_\_\_

Name of organization University of California, Los Angeles (UCLA)

Address Department of Physics, Knudsen Hall Room 1-129  
405 Hilgard Ave., Los Angeles, CA 90095

Phone Number \_\_\_\_\_

Government Contract/Grant No. STAR Project MOU with UCLA

Project Name STAR Project, TPC Gated Grid Drivers (WBS 4.2.3.2.6)

Expected Return Date April 1, 1996

Purpose of Loan Equipment will be use in the construction  
of the STAR TPC gated grid drivers and returned to LBL  
when the drivers are complete.

Property to be Loaned: 1 Motorola MVME 167-032 Single board computer

*\$5495*  
*\$395*

1 Motorola MVME 712M Transition module

1 Schroff 13890-485 20 slot VME chassis, mono backplane,  
autochaining, 750-Watt power supply.

*\$4000*

HAZARD REVIEW - At least one box must be checked:

- Chemical
- Radiological
- Biological

- Laser
- Microwave
- X-Ray

- Other Hazards
- No Hazards

Close Date: \_\_\_\_\_

Method: \_\_\_\_\_



# LOAN FILE SUMMARY

Date: 3/24/95

File No. 9L 950405

### PROPERTY LOANED BY:

Division Nuclear Science Div. Adm. Meredith Montgomery Ext. 4453

Department/Group STAR Project

Employee Coordinating Loan Russ Wells Ext. 7925

User Account Number 8052-24

Method of Shipment UPS  
(AT NO COST TO LBL)

### PROPERTY LOANED TO:

Person responsible for property Vahe Ghazikhanian

Phone Number 310-825-1515 Fax 310-206-5668

Property Management Contact \_\_\_\_\_

Name of organization University of California, Los Angeles (UCLA)

Address Department of Physics, Knudsen Hall Room 1-129  
405 Hilgard Ave., Los Angeles, CA 90095

Phone Number \_\_\_\_\_

Government Contract/Grant No. STAR Project MOU with UCLA

Project Name STAR Project, TPC Gated Grid Drivers (WBS 4.2.3.2.6)

Expected Return Date April 1, 1996

Purpose of Loan Equipment will be use in the construction  
of the STAR TPC gated grid drivers and returned to LBL  
when the drivers are complete.

Property to be Loaned: 1 Motorola MVME 167-032 Single board computer

1 Motorola MVME 712M Transition module

1 Schroff 13890-485 20 slot VME chassis, mono backplane,  
autochaining, 750-Watt power supply.

HAZARD REVIEW - At least one box must be checked:

Chemical

Laser

Radiological

Microwave

Other Hazards

Biological

X-Ray

No Hazards

Close Date: \_\_\_\_\_

Method: \_\_\_\_\_

\$ 5495  
\$ 395  
\$ 4000



BLDG. 70 ROOM 319

UNIVERSITY OF CALIFORNIA  
SHIPPING DOCUMENTSHIPPING  
DOCUMENT  
NUMBER

REQUESTED BY: J. Sterling MAIL CODE L70A3307

FOR CONTRACT NO. W-7405-ENG. 48  
OR CONTRACT NO. DE-AC03-76SF00098  
WITH THE DEPARTMENT OF ENERGYDATE  
3/24/95TYPED BY  
jcs

BLDG. 70 ROOM 319 EXTENSION 7343

PURCHASE ORDER NO. ACCOUNT NUMBER  
8052-24APPROVED BY *J. Sterling* DATE 3/24/95

SANL NO. BORROW NO.

AUTHORIZED BY DATE

 BERKELEY  SITE 300LOAN NO.  
9L950405

S.R.R. NO.

 LIVERMORE  NEVADA

SHIP TO

Vahe Ghazikhanian

ATTENTION

UCLA, Department of Physics, Knudsen Hall Room 1-129

ADDRESS

405 Hilgard Ave.

CITY, STATE AND ZIP CODE

Los Angeles, CA 90095

DATE REQUIRED AT DESTINATION

VALUE OF MATERIAL

FREIGHT CHARGES

COLLECT

PREPAID

PREPAID-DEDUCT FROM  
INVOICESELLER'S PROPERTY DECLARE VALUE ON WAYBILL 

XXXX

"SELLER RETURN" AUTHORIZED BY

LAB. (GOVT.) PROPERTY DO NOT DECLARE VALUE ON WAYBILL 

METHOD OF SHIPMENT:

METHOD OF SHIPMENT CODES:

9. AIR FREIGHT

ENTER CODE 3 UPS

1. PICK-UP

5. MOTOR FREIGHT

10. LAB TRUCK

2. PARCEL POST

6. HAND CARRY

11. DOE AIRCRAFT

3. UPS

7. AIR PARCEL POST

12. AIR FREIGHT FORWARDER

OTHER

4. FEDERAL EXP. 1

8. FEDERAL EXP. 2

13. DOE COURIER

REASON FOR SHIPMENT

To ship materials to be assembled at UCLA.

ITEM NO.	QUANTITY	DESCRIPTION	SERIAL, PROPERTY AND/OR CATALOG NUMBER
1	1	computer, VME Single Board, Motorola MVME167-032	
2	1	transition module, MVME712M	
3	1	power supply, 20 slot VME Chassis, SCHROFF 13880-485	
MATERIAL CLASSIFICATION _____			

## FOR USE BY SHIPPING SECTION ONLY

PACKED BY	NUMBER OF PKGS.	TYPE OF PKG.	WEIGHT	EQUIPMENT CHECKED BY
SHIPPED BY	DATE SHIPPED	CARRIER		WAYBILL NUMBER

RECEIVED BY \_\_\_\_\_ DATE \_\_\_\_\_



PRESENT LOCATION OF MATERIAL  
 BLDG. 70 ROOM 319  
 REQUESTED BY: J. Sterling MAIL CODE L70A3307  
 BLDG. 70 ROOM 319 EXTENSION 7343  
 APPROVED BY: *[Signature]* DATE 3/24/95  
 AUTHORIZED BY: *[Signature]* DATE

# UNIVERSITY OF CALIFORNIA SHIPPING DOCUMENT

SHIPPING DOCUMENT NUMBER

FOR CONTRACT NO. W-7405-ENG. 48  
 OR CONTRACT NO. DE-AC03-76SF00098  
 WITH THE DEPARTMENT OF ENERGY  
 BERKELEY  SITE 300  
 LIVERMORE  NEVADA

DATE 3/24/95	TYPED BY jcs
PURCHASE ORDER NO.	ACCOUNT NUMBER 8052-24
SANL. NO.	BORROW NO.
LOAN NO.	S.R.R. NO.

SHIP TO Vahe Ghazikhanian  
 ATTENTION UCLA, Department of Physics, Knudsen Hall Room 1-129  
 ADDRESS 405 Hilgard Ave.  
 CITY, STATE AND ZIP CODE Los Angeles, CA 90095

DATE REQUIRED AT DESTINATION	VALUE OF MATERIAL \$	COLLECT	FREIGHT CHARGES PREPAID XXXX	PREPAID-DEDUCT FROM INVOICE
SELLER'S PROPERTY <input type="checkbox"/>	DECLARE VALUE ON WAYBILL <input type="checkbox"/>	"SELLER RETURN" AUTHORIZED BY		
LAB. (GOVT.) PROPERTY <input type="checkbox"/>	DO NOT DECLARE VALUE ON WAYBILL <input type="checkbox"/>			
METHOD OF SHIPMENT: ENTER CODE 3 UPS	METHOD OF SHIPMENT CODES: 1. PICK-UP 2. PARCEL POST 3. UPS 4. FEDERAL EXP. 1	5. MOTOR FREIGHT 6. HAND CARRY 7. AIR PARCEL POST 8. FEDERAL EXP. 2	9. AIR FREIGHT 10. LAB TRUCK 11. DOE AIRCRAFT 12. AIR FREIGHT FORWARDER 13. DOE COURIER	
OTHER REASON FOR SHIPMENT				

To ship materials to be assembled at UCLA.

ITEM NO.	QUANTITY	DESCRIPTION	SERIAL, PROPERTY AND/OR CATALOG NUMBER
	1	computer	
	1	transition module	
	1	power supply	
MATERIAL CLASSIFICATION _____			

FOR USE BY SHIPPING SECTION ONLY

PACKED BY	NUMBER OF PKGS.	TYPE OF PKG.	WEIGHT	EQUIPMENT CHECKED BY
SHIPPED BY	DATE SHIPPED	CARRIER	WAYBILL NUMBER	

RECEIVED BY \_\_\_\_\_ DATE \_\_\_\_\_





# ALLIED METALS INCORPORATED

HOUSTON  
P.O. BOX 230829 - 77223-0829  
2220 CANADA DRY  
PHONE 713/823-8491 800/231-8880 FAX 713/823-5224

TULSA  
2930 N. FLORENCE - 74110  
PHONE 918/832-1000 800/876-5264 FAX 918/838-7647

## QUOTATION

TO: University of California  
Lawrence Berkeley Lab

No.

DATE: 3/20/95

SUBJECT:

Attn Rich Wiedenbach

ALUM

In reply to your inquiry we quote the following prices:

510-486-7105

1	80#	1/2 x 6' FLAT BAR 6061-T6 ALUM K 32 1/4" W	2140 <sup>00</sup> EA
2	80#	1/2 x 6 x 48 1/4" DITTO	3200 <sup>00</sup> EA
3	80#	3/4 x 1 x 46" DITTO	1090 <sup>00</sup> EA

24

PRICES SUBJECT TO CHANGE WITHOUT NOTICE  
MATERIAL WILL BE INVOICED AT PRICE IN EFFECT AT TIME OF SHIPMENT

ALL STOCK ITEMS SUBJECT  
TO PRIOR SALE

F. O. B. Delivered to Austin, Tex

TERMS:

WE THANK YOU FOR YOUR INQUIRY, AND HOPE TO BE OF SERVICE.

VERY TRULY YOURS,

ALL QUOTATIONS AND AGREEMENTS ARE CONTINGENT UPON STRIKES, ACCIDENTS, DELAYS OF CARRIERS AND OTHER CAUSES BEYOND OUR CONTROL. ALL QUOTATIONS ARE MADE FOR PROMPT ACCEPTANCE.

ALLIED METALS, Incorporated

SIGNATURE

Ray Dawd





3101 LONGHORN BLVD. • SUITE 103 • AUSTIN, TEXAS 78759  
AUSTIN 512-837-4490 • TEXAS WAIS 1-800-252-9194 • SAN ANTONIO 512-826-8825 • FAX 512-834-0331

FAX COVER SHEET

Date 3-17-95

TO: U.C.

FAX NO: (510) 486-7105

ATTN: Rich Weidenbach

Lawrence Berkeley Labs

24

FROM: Robert Dunnam

FAX NO: (512)834-0331

Pages in this transmission including cover letter 1  
If you do not receive all pages, please call (512)837-4490.

Ref: Quotations

80-pcs 1/2" x 6" x (32 1/4" + 1/4" - 0.00) 606176511  
@ 27.20 each

80-pcs 1/2" x 6" x (48 1/4" + 1/4" - 0.00) 606176511  
@ 39.58 each

80-pcs 3/4" x 1" x (46" + 1/8" - 0.00) 606176511

We may not need these @ 9.79/each

TOTAL \$6,125.60



REQUESTER <b>STEVE CHOW</b>	BLDG & ROOM <b>25A - 119</b>	DELIVER TO <b>S. CHOW</b>	BLDG ROOM <b>25A - 131</b>	NO. EXTENSION <b>STEVEN CHOW 5948</b>	HOLD FOR/J/O
APPROVED BY <i>[Signature]</i> <b>BERCOVITZ</b>	ACCOUNT NO. <b>8052-24</b>	AMOUNT OF P.O.	STAT. CODE	REQ NO <b>138800</b>	

AUTHORIZATION \$10,000  \$50,000  OVER

BUYER	CODE	ORDER NO.	REQ DATE <b>1/23/95</b>	DATE NEEDED <b>1/31/95</b>
COST NOT TO <b>\$216.00</b>			TERMS	

**UNIVERSITY OF CALIFORNIA**  
PURCHASE REQUISITION  
FOR CONTRACT NO. DE-AC03-76SF00098  
WITH THE  
DEPARTMENT OF ENERGY

**SHADED AREA FOR PURCHASING USE ONLY.**

SELLER \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Placed \_\_\_\_\_ Date \_\_\_\_\_ Contact \_\_\_\_\_

HAZARD REVIEW - Enter one of the letters in the box below

<b>N.</b>	C. Chemical	L. Laser	S. Service Contracts
	R. Radiological	M. Microwave	O. Other Hazards
	B. Biological	X. X-Ray	N. No Hazards

RETAIN LAST COPY SEND ALL OTHER COPIES TO PURCHASING

DATE MATERIAL RECEIVED	PACKING LIST NO.
DATE OF INSPECTION	RECEIVAL & INSPECTION CERTIFIED BY.
CARRIER	DELIVERY RECEIPT NUMBER

SHIP BY	SHIP FROM	F.O.B.	PROMISED DELIVERY TO CARRIER
---------	-----------	--------	------------------------------

ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
1. SAMTEC LOW COST SOCKET STRIPS # SSK - 121 - S - G	200 EA			
RICHEY CYPRESS				
2021 NO. CAPITOL AVE., SUITE B				
SAN JOSE, CA 95132				
(408) 956-5223				
ATTN.: CHRISTINA ZACHERY				

REMARKS

Authorized By \_\_\_\_\_ PURCHASING



PROCUREMENT CHECKLIST FOR PURCHASES  
MADE ON SPONSORED RESEARCH AGREEMENTS

Purchase Requisition No 138800 Buyer: E. Converse

Description: SAMTEC socket strips Amount: 216.00

Division: NSD Account No.: 8052-24

INSTRUCTIONS TO BUYER:

The Office of Sponsored Research Administration is to check the items below and sign this document prior to processing the following types of requisitions:

- Equipment transactions over \$500 on account numbers 43xx, 48xx, and 8xxx.
- R&D and Intra-University transactions (any amount) on account numbers 43xx, 48xx, and 8xxx

1. Requisition is approved as within authorized scope of work
2. Title ultimately passes from Seller to:

DOE

Other Federal Agency

UC

Private

3. At time of purchase, does title pass to Federal? Yes  No

4. Is requisition issued on State of California funds? Yes  No   
(If "yes" and requisition is over \$10,000, add audit blurb)

5. Are special terms or unusual sponsoring agency conditions to be included in subcontracts or purchase order? (If yes, send copy of P.O. to OSRA) Yes  No

6. Is requisition for ADPE and over \$10,000? Yes  No   
If yes, and title passes to the federal government, obtain approval from Office of Computing Resources.

Approved by: Meredith Montgomery  
Nuclear Science Division Administrator

Date 1/25/95



REQUESTER: <b>S. CHOW</b>	BLDG. & ROOM: <b>25A - 119</b>	DELIVER TO: <b>S. CHOW 25A - 131</b>	NO. OF PURVISION: <b>STEVEN CHOW 5948</b>	HOLD FOR/J.O.
APPROVED BY: <i>[Signature]</i>	ACCOUNT NO.: <b>8052-24</b>	AMOUNT OF P.O.	STAT. CODE	REQ. NO.: <b>138740</b>

AUTHORIZATION	\$10,000 <input type="checkbox"/>	\$50,000 <input type="checkbox"/>	OVER <input type="checkbox"/>
BUYER	CODE	ORDER NO.	REQ. DATE: <b>1/23/95</b>
			DATE NEEDED: <b>3/1/95</b>

**UNIVERSITY OF CALIFORNIA**  
**PURCHASE REQUISITION**  
 FOR CONTRACT NO. DE-AC03-76SF00098  
 WITH THE  
 DEPARTMENT OF ENERGY

COST NOT TO EXCEED: <b>\$2,469.60</b>	TERMS:
---------------------------------------	--------

**SHADED AREA FOR PURCHASING USE ONLY.**

SELLER \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Placed \_\_\_\_\_ Date \_\_\_\_\_ Contact \_\_\_\_\_

HAZARD REVIEW - Enter one of the letters in the box below.

<b>N.</b>	C. Chemical	L. Laser	S. Service Contracts
	R. Radiological	M. Microwave	O. Other Hazards
	B. Biological	X. X-Ray	N. No Hazards

RETAIN LAST COPY SEND ALL OTHER COPIES TO PURCHASING

DATE MATERIAL RECEIVED:	PACKING LIST NO.
DATE OF INSPECTION	RECEIVAL & INSPECTION CERTIFIED BY:
CARRIER	DELIVERY RECEIPT NUMBER

SHIP BY	SHIP FROM	F.O.B.	PROMISED DELIVERY TO CARRIER
---------	-----------	--------	------------------------------

ITEM NO.	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
1.	METUCHEN CAPACITORS P/N 302C1812B102M DELIVERY: 68 PIECES - STOCK; BALANCE 4 - 6 WEEKS AROM  ATTN.: JACKIE WOLTER (SALES) METUCHEN CAPACITORS, INC. 139 WHITE OAK LANE, P.O. BOX 499 OLD BRIDGE, NJ 08857 (800) 899-6969	2,205 EACH			

RECEIVED  
 LAWRENCE BERKELEY LAB  
 PURCHASING DEPT  
 95 JAN 25 PM 11:30

REMARKS: \_\_\_\_\_

Authorized By \_\_\_\_\_ PURCHASING



**METUCHEN CAPACITORS, INC.**

7732 Cottonwood Lane

Pleasanton, CA 94588

(510)417-0450 FAX: (510)417-0505

January 12, 1995

**PROPOSAL # 020159****UNIVERSITY of CALIFORNIA-BERKELEY LABS**

1 Cyclotron Avenue; Building #25-A

Berkeley, CA 94720

Attn: Steve Chow: M/S: 119

Confirming our conversations of this morning; we are pleased to submit the following proposal to University of California:

Metuchen Capacitors P/N	QUANTITY	UNIT PRICE
302C1812B102M	2,205 PIECES	\$ 1.12 EACH

DELIVERY: 68 pieces-stock; Balance 4-6 weeks ARO.

TERMS: NET THIRTY (30) DAYS

FOB: POINT OF SHIPMENT

PLEASE ADDRESS YOUR PURCHASE ORDER TO:

METUCHEN CAPACITORS, INC.

139 WHITE OAK LANE; P.O. BOX 499

OLD BRIDGE, NJ 08857

If there are any additional questions; feel free to contact my office at (510)417-0450 or please contact Jackie Wolter-Metuchen Capacitors, Inc. Inside Sales at 1-800-899-6969.

Regards,



Mark Bukowski  
Sales Engineer

Copy: Jackie Wolter-Metuchen Capacitors, Inc.



PROCUREMENT CHECKLIST FOR PURCHASES  
MADE ON SPONSORED RESEARCH AGREEMENTS

Purchase Requisition No 138740 Buyer: \_\_\_\_\_

Description: METUCHEN CAP, INC. SMD chip capacitors, Amount: 2,469.6000

Division: NSD Account No.: 8052-24

INSTRUCTIONS TO BUYER:

The Office of Sponsored Research Administration is to check the items below and sign this document prior to processing the following types of requisitions:

- Equipment transactions over \$500 on account numbers 43xx, 48xx, and 8xxx.
- R&D and Intra-University transactions (any amount) on account numbers 43xx, 48xx, and 8xxx

1. Requisition is approved as within authorized scope of work

2. Title ultimately passes from Seller to:

DOE

Other Federal Agency

UC

Private

3. At time of purchase, does title pass to Federal? Yes  No

4. Is requisition issued on State of California funds? Yes  No   
(If "yes" and requisition is over \$10,000, add audit blurb)

5. Are special terms or unusual sponsoring agency conditions to be included in subcontracts or purchase order? (If yes, send copy of P.O. to OSRA) Yes  No

6. Is requisition for ADPE and over \$10,000? Yes  No   
If yes, and title passes to the federal government, obtain approval from Office of Computing Resources.

Approved by Michael Montgomery  
Nuclear Science Division Administrator

Date 1/25/95



REQUESTER <b>S. CHOW</b>	BLDG & ROOM <b>25A - 119</b>	DELIVER TO <b>S. CHOW</b>	BLDG ROOM <b>25A - 131</b>	NOTIFY <b>STEVEN CHOW</b>	EXTENSION <b>5948</b>	HOLD FOR/J/O
APPROVED BY <i>[Signature]</i>	ACCOUNT NO <b>8052-24</b>	AMOUNT OF P.O.		STAT CODE	REQ NO <b>138750</b>	

AUTHORIZATION	\$10,000 <input checked="" type="checkbox"/>	\$50,000 <input type="checkbox"/>	OVER <input type="checkbox"/>	
BUYER	CODE	ORDER NO.	REQ DATE <b>1/23/95</b>	DATE NEEDED <b>1/31/95</b>
COST NOT TO EXCEED <b>\$98.50</b>	TERMS:			

**UNIVERSITY OF CALIFORNIA**  
**PURCHASE REQUISITION**  
 FOR CONTRACT NO. DE-AC03-76SF00098  
 WITH THE  
 DEPARTMENT OF ENERGY

**SHADED AREA FOR PURCHASING USE ONLY.**

SELLER \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Placed \_\_\_\_\_ Date \_\_\_\_\_ Contact \_\_\_\_\_

HAZARD REVIEW - Enter one of the letters in the box below

<input checked="" type="checkbox"/> N	C. Chemical	L. Laser	S. Service Contracts
	R. Radiological	M. Microwave	O. Other Hazards
	B. Biological	X. X-Ray	N. No Hazards

RETAIN LAST COPY SEND ALL OTHER COPIES TO PURCHASING

DATE MATERIAL RECEIVED:	PACKING LIST NO.
DATE OF INSPECTION	RECEIVAL & INSPECTION CERTIFIED BY:
CARRIER	DELIVERY RECEIPT NUMBER

SHIP BY:	SHIP FROM:	F.O.B.	PROMISED DELIVERY TO CARRIER
----------	------------	--------	------------------------------

ITEM	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
1.	RESISTORS, PHILIPS P/N 9C12063A1005JL	5,000 EACH			
	PHILIPS COMPONENTS				
	PASSIVE COMPONENTS GROUP				
	5101 AIRPORT ROAD				
	MINERAL WELLS, TX 76067				
	TEL: (817) 325-7871				
	FAX: (817) 325-8397 (SPR)				
	FAX: (817) 325-1052 (GPR)				

REMARKS \_\_\_\_\_

Authorized By \_\_\_\_\_ PURCHASING



PROCUREMENT CHECKLIST FOR PURCHASES  
MADE ON SPONSORED RESEARCH AGREEMENTS

Purchase Requisition No 138750 Buyer: E. Converse

Description: PHILIPS SMD chip resistors series 9C Amount: 98.50

Division: NSD Account No.: 8052-24

INSTRUCTIONS TO BUYER:

The Office of Sponsored Research Administration is to check the items below and sign this document prior to processing the following types of requisitions:

- Equipment transactions over \$500 on account numbers 43xx, 48xx, and 8xxx.
- R&D and Intra-University transactions (any amount) on account numbers 43xx, 48xx, and 8xxx

1. Requisition is approved as within authorized scope of work

2. Title ultimately passes from Seller to:

DOE

Other Federal Agency

UC

Private

3. At time of purchase, does title pass to Federal? Yes  No

4. Is requisition issued on State of California funds? Yes  No   
(If "yes" and requisition is over \$10,000, add audit blurb)

5. Are special terms or unusual sponsoring agency conditions to be included in subcontracts or purchase order? (If yes, send copy of P.O. to OSRA) Yes  No

6. Is requisition for ADPE and over \$10,000? Yes  No   
If yes, and title passes to the federal government, obtain approval from Office of Computing Resources.

Approved by: Michelle Montgomery  
Nuclear Science Division Administrator

1/25/95  
Date



DELINQUENT FREIGHT BILL

URGENT - IMMEDIATE ATTENTION REQUIRED

13

95/01/24

446

7000 00 VIKG

(VIKN)

PRO DATE

VIKING PRO NUMBER

5952

P.O. BOX 649001, San Jose, California 95164-900  
Telephone (408) 922-7200



95/01/22

517052205

PAGE 1

PIECES	DESCRIPTION	WEIGHT	RATE	CHARGES
1	BANDED IRON PLATES *JOHN WORTH *CENF 93.69	210		126.69
1		210		
PAYMENT DUE WITHIN 7 DAYS PER ICC/CPUC				
FAILURE TO PAY CHARGES CAN RESULT IN A LIEN ON FUTURE SHIPMENTS OR COLLECTION PENALTIES				PLUS SURCHARGE
O/C=CENFVIKING		D/C= 562659813		AMT DUE ▶ 126.69

SHIPPER 84.88 41.81

PRO # 517052205 COLLECT

STEVE WORM  
VT PHYSICS RLM 5208  
AUSTIN TX 78712

CONSIGNEE

WELLS RP  
ASY LIL  
4 CYCLOTRON RD BLDG 77  
BERKELEY CA 94720  
RM583A 4 H-010835-N  
ACCT # WLS4CCLTBR 0540/0533

WELLS RP  
\* ASY LIL  
4 CYCLOTRON RD BLDG 77  
BERKELEY CA 94720

24

ATTN JOHN MCHREN

John -  
We have received these plates

*Samuel White*







ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 4/19/94 Account No. 8052-24 Serial No. 033684  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: J. BOEHM 6506 Ext. Refer Questions To: BOEHM/BERCOVITZ Ext.  
 Job Requested By: (Client) J. BERCOVITZ 6506/5833 Ext.  
 Design Check By: (Engineer Responsible) \_\_\_\_\_ Ext.

Production Check By: [Signature] Date 4-19-94 Authorized By: [Signature] Date APR 19 93  
 Job Description: STAR Residual Risks Accepted  
 By: \_\_\_\_\_

OSECT COOLING MANI  
TUBE HOLE DRILLING & TAPPING

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	<u>J. WIRTH</u>	<u>77</u>	<u>ASSY 590</u>	<u>4/29/94</u>	
ASSEMBLY					

REFERENCE DISTRIBUTION		PRINTS			
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.	
<u>R. WELLS</u>	<u>70</u>	<u>70A-3307</u>	<u>1</u>	<u>—</u>	
<u>J. BERCOVITZ</u>	<u>70</u>	<u>11</u>	<u>1</u>	<u>—</u>	
<u>J. BOEHM</u>	<u>70</u>	<u>11</u>	<u>1</u>	<u>2</u>	
<u>J. WIRTH</u>	<u>77</u>	<u>125</u>	<u>1</u>	<u>—</u>	

WORK DISTRIBUTION							
CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	DWGS.
MECH. ENG.				MECH. SHOP OFF.		<u>2</u>	<u>2</u>
MECH. TECH. OFF.				ASS'Y SHOP	<u>1</u>		
SHOP 25				MACH. SHOP			
SHOP 71				PAINT SHOP			
SHOP				SHEET METAL			
SHOP				WELDING SHOP			
ELECT. ENG.				C&M OFFICE			
COORDINATING				CARPENTERS			
DRAFTING				ELECTRICIANS			
ELECT. FAB.				LABORERS			
ELECT. INSTALL				MAINT. TECHS			
ELECT. MAINT.				PAINTERS			
ELECT. Q.A.				PLUMBERS			
OPER. CHECK							
TECH. SUPP.							
ELEC-MECH. 80							
				TOTAL HRS	<u>30</u>	AT	<u>64</u> HR.
				LABOR	\$	<u>4,920.</u>	<u>—</u>
				MATERIAL	\$		
				TOTAL	\$	<u>4,920.</u>	<u>—</u>

SAFETY SHOPS  
 SAFETY/ENVIRONMENTAL  
 ANALYSIS  
 BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PRELIM. \_\_\_\_\_  
 FINAL \_\_\_\_\_

FABRICATION:  
 LBL SHOPS  
 OUTSIDE SHOPS  
 Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

PRINT DIVISION  
 MECH ENGR 1  
 LBL CHECKED  
 APR 19 7 22 AM '94

JOB ORDER

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME	DESCRIPTION	INSTRUCTIONS
1	✓	24A4306	2	TUBE #01	MACHINING	ADD "DETAIL 1" HOLES TO EXISTING TUBES
2	✓	24A4316	2	" #02	"	ADD "DETAIL 1" HOLES TO EXISTING TUBES
3		24A4326	2	" #03	"	ADD "DETAIL 1" & "DETAIL 4" HOLES TO EXISTING TUBES
4		24A4336	2	" #04	"	ADD "DETAIL 1" HOLES TO EXISTING TUBES
5		24A4346	2	" #05	"	ADD "DETAIL 1" HOLES TO EXISTING TUBES
6	✓	24A4356	2	" #06	"	ADD "DETAIL 1" HOLES TO EXISTING TUBES
7	✓	24A4376	2	" #07	"	ADD "DETAIL 1" & "DETAIL 4" HOLES TO EXISTING TUBES
8	✓	24A4374	2	" #08	"	ADD "DETAIL 1" HOLES TO EXISTING TUBES
9	✓	24A4384	2	" #09	"	ADD "DETAIL 1" & "DETAIL 4" HOLES TO EXISTING TUBES
10	✓	24A4394	2	" #10	"	ADD "DETAIL 1" HOLES TO EXISTING TUBES
11	✓	24A4404	2	" #11	"	ADD "DETAIL 1" HOLES TO EXISTING TUBES
12	✓	24A4414	2	" #12	"	ADD "DETAIL 1" HOLES TO EXISTING TUBES







JOB ORDER  PROCUREMENT

MAKE/BUY NO. \_\_\_\_\_

PAGE 1 OF 1

ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 7/28/94 Account No. 8052-24 Serial No. 033883  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: J. Boehm 6506 Ext. 6506 Refer Questions To: Boehm Ext. 6506

Job Requested By: (Client) J. Bohm Ext. 5833

Design Check By: (Engineer Responsible) \_\_\_\_\_ Ext. \_\_\_\_\_

Production Check By: J. Bohm Date 7-28-94 Authorized By: John Bents Date 9/10/93

Job Description: STAR Residual Risks Accepted By: \_\_\_\_\_

OUTER SECTOR MANIFOLD  
OSECT FITTINGS

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	<u>J. WIRTH</u>	<u>77</u>	<u>125</u>	<u>5901</u>	<u>8/5/94</u>
ASSEMBLY					

SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.
<u>J. Bents</u>	<u>77A</u>	<u>3307</u>	<u>1</u>	<u>—</u>
<u>Jess Wells</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>—</u>
<u>J. Boehm</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>2</u>

REFERENCE DISTRIBUTION	PRINTS

EST. HRS.	PRINTS J.O. DWGS.	CRAFT
		MECH. ENG.
		MECH. TECH. OFF.
		SHOP 25
		SHOP 71
		SHOP
		SHOP
		ELECT. ENG.
		COORDINATING
		DRAFTING
		ELECT. FAB.
		ELECT. INSTALL
		ELECT. MAINT.
		ELECT. Q.A.
		OPER. CHECK
		TECH. SUPP.
		ELEC-MECH. 80
		SAFETY SHOPS
		SAFETY/ENVIRONMENTAL
		ANALYSIS

EST. HRS.	PRINTS J.O. DWGS.	CRAFT
<u>7</u>	<u>2</u> <u>2</u>	MECH. SHOP OFF.
		ASS'Y SHOP
<u>11</u>		MACH. SHOP
		PAINT SHOP
		SHEET METAL
		WELDING SHOP
		C&M OFFICE
		CARPENTERS
		ELECTRICIANS
		LABORERS
		MAINT. TECHS
		PAINTERS
		PLUMBERS
		TOTAL HRS <u>12</u> AT <u>60</u> HR.
		LABOR \$ <u>720</u>
		MATERIAL \$ <u>30</u>
		TOTAL \$ <u>750</u>
		FABRICATION:
		<input checked="" type="checkbox"/> LBL SHOPS
		<input type="checkbox"/> OUTSIDE SHOPS
		Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

PRINT DIVISION  
MECH ENGR DEPT  
LBL, BERKELEY  
Jul 28 7 52 AM '94

JOB ORDER

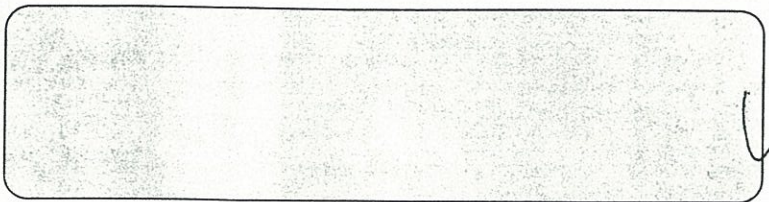
ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME	DESCRIPTION	INSTRUCTIONS
<u>1</u>		<u>24A4915A</u>	<u>6ea</u>	<u>Man Fitting Nut,</u>		
<u>2</u>		<u>24A4915B</u>	<u>2 6ea</u>	<u>" " "</u>		
<u>3</u>		<u>24A4923A</u>	<u>1 6ea</u>	<u>Man Fitting Cap-off</u>		
<u>4</u>		<u>24A4923B</u>	<u>2 6ea</u>	<u>" " "</u>		
<u>5</u>		<u>24A4933A</u>	<u>1 6ea</u>	<u>Man Fitting Nipple</u>		
<u>6</u>		<u>24A4933B</u>	<u>2 6ea</u>	<u>" " "</u>		
				<u>Shop to furnish Mat'l.</u>		
				<u>similar to J.O. # 033812, (revised parts)</u>		





**ETCH-TEK, INC.**

2455 Bates Avenue  
Concord, CA 94520  
Telephone (510) 671-9800  
FAX (510) 671-0151



Sale Invoice  
Terms: 2% 10 NET 30  
Invoice # 13194

Transaction Date: 09/29/94  
Due Date: 10/29/94  
Discount Date: 10/09/94

PO No.: 4707602

Sold To:  
UC Lawrence Berkeley Labs  
Account Office Box 5001  
Livermore, Ca 94550  
Attention: Accounts Payable

Ship To:  
UC Lawrence Berkeley Labs  
2700 7th St., Bldg 25A, Rm 101  
Berkeley, Ca 94710

Item ID	Description	Qty	UM	Price	Extension
P.C. Boards	A000890U1 Rev A Job#1602-01	4.00	Ea	1,365.00	5,460.00
4 P.C. Boards @ N.C.		1.00		0.00	0.00
Toolins		1.00	Ea	495.00	495.00
Fixture		1.00	Ea	250.00	250.00
5 Pos/3 Nes.	Solder Sample	1.00		0.00	0.00
Hand Carry	2 Boxes	1		0.00	0.00

RECEIVED  
LBL  
ACCOUNTS PAYABLE  
SEP 30 94 10:48 AM

Subtotal 6,205.00

Total Invoice 6,205.00

Net Due 6,205.00







REQUESTED BY **R. WELLS** BLDG. **70A - 3307** ROOM **70** DELIVERY TO BLDG. **314** RM. **314** NOTIFY **R. WELLS** EXT. **7925** HOLD FOR ACCT./J.O.

APPROVED BY *Russell White* ACCOUNT NO. **8052-24** AMOUNT OF P.O. SELLER CODE STAT. CODE SELLER'S NAME

AUTHORIZATION \$10,000  \$50,000  OVER  SB  BB

**UNIVERSITY OF CALIFORNIA**  
**PURCHASE REQUISITION**  
**FOR CONTRACT NO. DE-AC03-76SF00098**  
**WITH THE**  
**DEPARTMENT OF ENERGY**  
**SEND WITH YELLOW, GREEN & PINK COPY**  
**TO PURCHASING**

BUYER CODE ORDER NO. REQ. DATE **10-12-94**  
 DATE NEEDED **11-21-94**  
 COST NOT TO EXCEED **\$ 3000** REFER BIDS TO REQ. NO. **410271**  
 TERMS: FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER.

**SHADED AREA FOR PURCHASING USE ONLY.**

SELLER \_\_\_\_\_  
 Street \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_  
 Placed \_\_\_\_\_ Date \_\_\_\_\_ Contact \_\_\_\_\_

HAZARD REVIEW - At least one box must be checked:  
 Chemical  Laser  Service Contracts  
 Radiological  Microwave  Other Hazards  
 Biological  X-Ray  No Hazards

DATE MATERIAL RECEIVED: \_\_\_\_\_ PACKING LIST NO. \_\_\_\_\_  
 DATE OF INSPECTION \_\_\_\_\_ RECEIVAL & INSPECTION CERTIFIED BY: \_\_\_\_\_  
 CARRIER \_\_\_\_\_ DELIVERY RECEIPT NUMBER \_\_\_\_\_

COLUMNS BELOW FOR PURCHASING, RECEIVING AND ACCOUNTING.  
 REQUISITIONERS MAY USE PRICE COLUMNS IF TOTAL ORDER ESTIMATE EXCEEDS \$1000.00

SHIP BY \_\_\_\_\_ SHIP FROM \_\_\_\_\_ F.O.B. \_\_\_\_\_  
 PROMISED DELIVERY TO CARRIER \_\_\_\_\_  
 QUANTITY ACCEPTED AS ORDERED \_\_\_\_\_

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
1		RODLESS CYLINDER ELECTRIC ACTUATOR, ID CORP P/N RS 22 995 A - 42 - MSS - SC	1			
2		REED SWITCH, NORMALLY OPEN, # RPS-1 FOR ITEM 1	1			
3		REED SWITCH, NORMALLY CLOSED # RPS-2 FOR ITEM 1	2			
FOR USE WITH EXISTING COMPUTOR AX DRIVE						
VENDOR WESTERN TECHNOLOGY MARKETING (415) 968-2200 STEVE SHIELDS						

REMARKS:



REQUESTED BY <b>R. WELLS</b>	BLDG. ROOM <b>70A - 3307</b>	DELIVERY TO BLDG. RM. <b>70 314</b>	NOTIFY EXT. <b>R. WELLS 7925</b>	HOLD FOR ACCT./J.O. <b>11/14/94</b>
APPROVED BY <i>Russell Wells</i>	ACCOUNT NO. <b>8052-24</b>	AMOUNT OF P.O. <b>2835</b>	SELLER CODE <b>1813700</b>	STAT. CODE <b>1813700</b>

AUTHORIZATION \$10,000  \$50,000  OVER  SB  BB

CODE <b>175</b>	ORDER NO. <b>58214</b>	REQ. DATE <b>10-12-94</b>
COST NOT TO EXCEED <b>\$ 3000</b>	REFER BIDS TO	DATE NEEDED <b>11-21-94</b>
	REQ. NO. <b>410271</b>	TERMS: FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER. <b>7</b>

**UNIVERSITY OF CALIFORNIA**  
**PURCHASE REQUISITION**  
**FOR CONTRACT NO. DE-AC03-76SF00098**  
**WITH THE DEPARTMENT OF ENERGY**  
**REQUISITIONER-FOR INFORMATION PURPOSES**

**SHADED AREA FOR PURCHASING USE ONLY.**

SELLER: *Western Technology Mktg*  
**2679-A Terminal Blvd**  
 Street  
**MT. VIEW, CA 94043**  
 City State  
 Placed **10/31/94** Date Contact **Steve**

HAZARD REVIEW - At least one box must be checked:

<input type="checkbox"/> Chemical	<input type="checkbox"/> Laser	<input type="checkbox"/> Service Contracts
<input type="checkbox"/> Radiological	<input type="checkbox"/> Microwave	<input type="checkbox"/> Other Hazards
<input type="checkbox"/> Biological	<input type="checkbox"/> X-Ray	<input type="checkbox"/> No Hazards

DATE MATERIAL RECEIVED: <b>11-15-94</b>	PACKING LIST NO. <b>5170</b>
DATE OF INSPECTION <b>16-91</b>	RECEIVAL & INSPECTION CERTIFIED BY: <b>mac</b>
CARRIER <b>UPS</b>	DELIVERY RECEIPT NUMBER

COLUMNS BELOW FOR PURCHASING, RECEIVING AND ACCOUNTING.  
 REQUISITIONERS MAY USE PRICE COLUMNS IF TOTAL ORDER ESTIMATE EXCEEDS \$1900.00

SHIP BY **3** SHIP FROM **Novato, CA** F.O.B. **2** PROMISED DELIVERY TO CARRIER **11/14/94**

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
1		RODLESS CYLINDER ELECTRIC ACTUATOR, I.D. CORP P/N RS 22 995A - 42 - MSS - SC	1 EA	2670 EA	2670.00	1 EA
2		REED SWITCH, NORMALLY OPEN, # RPS-1 (FOR ITEM 1)	1 EA	55.00	55.00	1 EA
3		REED SWITCH, NORMALLY CLOSED # RPS-2 (FOR ITEM 1)	2 EA	55.00	110.00	2 EA
NOTE: FOR USE WITH EXISTING COMPUMOTOR AX DRIVE						
VENDOR: WESTERN TECHNOLOGY MARKETING (415) 968-6200						
NO GSA DEPT INCL STEVE SHIELDS (MAX)						



REQUESTED BY <b>R. WELLS</b>	BLDG. ROOM <b>70A - 3307</b>	DELIVERY TO BLDG. RM. <b>70 314</b>	NOTIFY EXT. <b>R. WELLS 7925</b>	HOLD FOR ACCT./J.O.
APPROVED BY <i>[Signature]</i>	ACCOUNT NO. <b>8052-24</b>	AMOUNT OF P.O. <b>2835.</b>	SELLER CODE <b>113200</b>	STAT. CODE <b>113200</b>

AUTHORIZATION \$10,000  \$50,000  OVER  SB  BB

BUYER CODE <b>W175</b>	ORDER NO. <b>5821402</b>	REQ. DATE <b>10-12-94</b>
COST NOT TO EXCEED <b>\$ 3000</b>	REFER BIDS TO	DATE NEEDED <b>11-21-94</b>
	REQ. NO. <b>410271</b>	TERMS: FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER. <b>7</b>

**UNIVERSITY OF CALIFORNIA**  
**PURCHASE REQUISITION**  
**FOR CONTRACT NO. DE-AC03-76SF00098**  
**WITH THE DEPARTMENT OF ENERGY**  
**PURCHASING FILE COPY**

**SHADED AREA FOR PURCHASING USE ONLY.**

SELLER: **Western Technology Mktg**  
**2679-A Terminal Blvd**  
**MH. View, CA 94043**  
 City: **MH. View, CA** State: **CA**  
 Placed: **11/1/94** Date: **11/1/94** Contact: **Steve**

**HAZARD REVIEW - At least one box must be checked:**

<input type="checkbox"/> Chemical	<input type="checkbox"/> Laser	<input type="checkbox"/> Service Contracts
<input type="checkbox"/> Radiological	<input type="checkbox"/> Microwave	<input type="checkbox"/> Other Hazards
<input type="checkbox"/> Biological	<input type="checkbox"/> X-Ray	<input type="checkbox"/> No Hazards

DATE MATERIAL RECEIVED:	PACKING LIST NO.
DATE OF INSPECTION	RECEIVAL & INSPECTION CERTIFIED BY:
CARRIER	DELIVERY RECEIPT NUMBER

COLUMNS BELOW FOR PURCHASING, RECEIVING AND ACCOUNTING.

REQUISITIONERS MAY USE PRICE COLUMNS IF TOTAL ORDER ESTIMATE EXCEEDS \$1000.00

F.O.B. **OF**

PROMISED DELIVERY TO CARRIER **11/1/94**

QUANTITY ACCEPTED AS ORDERED

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
		RODLESS CYLINDER ELECTRIC ACTUATOR, I.D. CORP P/N RS 22 995A - 42 - MSS - SC	1 94	2670	2670.00	
2		REED SWITCH, NORMALLY OPEN, # RPS-1 (FOR ITEM 1)	1 94	55.00	55.00	
3		REED SWITCH, NORMALLY CLOSED # RPS-2 (FOR ITEM 1)	2 94	55.00	110.00	
<p>FOR USE WITH EXISTING COMPUTER AX DRIVE</p> <p>VENDOR: WESTERN TECHNOLOGY MARKETING (415) 968-9200 DEPT INCL STEVE SHIELDS</p>						



PRESENT LOCATION OF MATERIAL

PAGE 1 OF 1 PAGES

BLDG. 70 ROOM 319

UNIVERSITY OF CALIFORNIA  
SHIPPING DOCUMENT

SHIPPING DOCUMENT NUMBER

853844

REQUESTED BY: RUSS WELLS MAIL CODE L

BLDG. 70 ROOM 319 EXTENSION 7925

FOR CONTRACT NO. W-7405-ENG. 48  
OR CONTRACT NO. DE-AC03-76SF00098  
WITH THE DEPARTMENT OF ENERGY

DATE 10/4/94 TYPED BY M. CALLAHAM

APPROVED BY DATE

PURCHASE ORDER NO. ACCOUNT NUMBER 8052-24

AUTHORIZED BY DATE

 BERKELEY  SITE 300

SANL. NO. BORROW NO.

B. EDWARDS

10/4/94

 LIVERMORE  NEVADA

LOAN NO. S.R.R. NO.

SHIP TO

ATTENTION BOB CAYLOR

ADDRESS 32701 NAMELESS LANE

CITY, STATE AND ZIP CODE FORT BRAGG, CA 95437

DATE REQUIRED AT DESTINATION 10/6/94 VALUE OF MATERIAL \$ COLLECT FREIGHT CHARGES PREPAID PREPAID-DEDUCT FROM INVOICE

SELLER'S PROPERTY  DECLARE VALUE ON WAYBILL "SELLER RETURN" AUTHORIZED BYLAB. (GOVT.) PROPERTY  DO NOT DECLARE VALUE ON WAYBILL 

METHOD OF SHIPMENT: 4 METHOD OF SHIPMENT CODES: 1. PICK-UP 2. PARCEL POST 3. UPS 4. FEDERAL EXP. 1 5. MOTOR FREIGHT 6. HAND CARRY 7. AIR PARCEL POST 8. FEDERAL EXP. 2 9. AIR FREIGHT 10. LAB TRUCK 11. DOE AIRCRAFT 12. AIR FREIGHT FORWARDER 13. DOE COURIER

OTHER REASON FOR SHIPMENT

NUMEROUS BLUE PRINT COPIES / CANNOT BE SUCCESSFULLY FAXED

ITEM NO.	QUANTITY	DESCRIPTION	SERIAL, PROPERTY AND/OR CATALOG NUMBER
1.	10	BLUE PRINT COPIES	N/A
MATERIAL CLASSIFICATION _____			

## FOR USE BY SHIPPING SECTION ONLY

PACKED BY	NUMBER OF PKGS.	TYPE OF PKG.	WEIGHT	EQUIPMENT CHECKED BY
SHIPPED BY <i>at</i>	DATE SHIPPED <i>10/6/94</i>	CARRIER <i>Fed</i>	<i>2</i>	WAYBILL NUMBER

RECEIVED BY \_\_\_\_\_ DATE \_\_\_\_\_



7/1/94

REQUESTED BY JHN STERLING	BLDG. 70	ROOM 319	DELIVERY TO BLDG. 70 CAGE	RM.	NOTIFY JHN STERLING 742	EXT.	HOLD FOR ACCT./J.O.
APPROVED BY Thomel Will	ACCOUNT NO. 8052-24	AMOUNT OF P.O. 487.75	SELLER CODE	STAT. CODE 1813400	SELLER'S NAME		

HORIZONTALIZATION	\$10,000 <input type="checkbox"/>	\$50,000 <input checked="" type="checkbox"/>	OVER <input type="checkbox"/>	SB <input type="checkbox"/>	BB <input type="checkbox"/>
BUYER CODE 100 235	ORDER NO. 51589A2	REQ. DATE 6/20/94	DATE NEEDED 7/1/94	TERMS: FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER. NET - 1 DAY	
COST NOT TO EXCEED #550.00	REFER BIDS TO	REQ. NO. 415148			

**UNIVERSITY OF CALIFORNIA**  
**PURCHASE REQUISITION**  
**FOR CONTRACT NO. DE-AC03-76SF00098**  
**WITH THE DEPARTMENT OF ENERGY**  
**PURCHASING FILE COPY**

**SHADED AREA FOR PURCHASING USE ONLY.**

SELLER: HP TRITE INT'L OFFICE PRODUCTS  
PO BOX 11008  
SUNNYVALE CA 415-873-6500  
 City: SUNNYVALE CA State: CA  
 Placed: 6-27-94 Date: 6-27-94 Contact: HARRY

HAZARD REVIEW - At least one box must be checked:

<input type="checkbox"/> Chemical	<input type="checkbox"/> Laser	<input type="checkbox"/> Service Contracts
<input type="checkbox"/> Radiological	<input type="checkbox"/> Microwave	<input type="checkbox"/> Other Hazards
<input type="checkbox"/> Biological	<input checked="" type="checkbox"/> X-Ray	<input checked="" type="checkbox"/> No Hazards

DATE MATERIAL RECEIVED:	PACKING LIST NO.
DATE OF INSPECTION	RECEIVAL & INSPECTION CERTIFIED BY:
CARRIER	DELIVERY RECEIPT NUMBER
COLUMNS BELOW FOR PURCHASING RECEIVING AND ACCOUNTING. <u>6/29/94</u>	
REQUISITIONERS MAY USE PRICE COLUMNS IF TOTAL ORDER ESTIMATE EXCEEDS \$1000.00	
F.O.B. <u>1</u>	PROMISED DELIVERY TO CARRIER
	QUANTITY ACCEPTED AS ORDERED

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
1		HP INKJET BUTTER PAPER 36 INCH WIDTH, 150 FT ROLL HP PART #9290-1637	8	41.125	329.00	
2		HP DESIGNJET TONER CARTRIDGE CAPACITY TRINK CARTRIDGE - BLACK HP PART #51126A	5	31.95	159.75	
					487.75	



94/07/18

TO PAUL WYATT, BMC

FROM JOHN BERCOVITZ, LBL

PAUL,

ALL SAMPLES PROVIDED  
BY YOU, LABELED API  
THRU API0 INCLUSIVE,  
SATISFY LBL'S REQUIRE-  
MENTS AS TO BROMINE  
LEVEL.

John Bercovitz  
JOHN BERCOVITZ



REQUESTER <b>R. WELLS</b>	BLDG & ROOM <b>70A/3307</b>	DELIVER TO: <b>J. Beercovitz 70a/3307</b>	BLDG ROOM	NOTIFY	EXTENSION	HOLD FOR/J.O.
APPROVED BY <b>R. Wells(sof)</b>	ACCOUNT NO. <b>8052-24</b>	AMOUNT OF P.O. <b>\$150.00</b>		STAT. CODE <b>1813203</b>	REQ. NO. <b>733886</b>	

AUTHORIZATION \$10,000  \$50,000  OVER

BUYER <b>MEHREN- 535</b>	CODE	ORDER NO. <b>28101a2</b>	REQ. DATE <b>6/21/94</b>	DATE NEEDED <b>6/22/94</b>
COST NOT TO EXCEED				TERMS: <b>7</b>

**UNIVERSITY OF CALIFORNIA**  
PURCHASE REQUISITION  
FOR CONTRACT NO. DE-AC03-76SF00098  
WITH THE  
DEPARTMENT OF ENERGY

REQUISITIONER COPY

**SHADED AREA FOR PURCHASING USE ONLY.**

SELLER **CALCOAST ANALYTICAL**  
**4072 WATTS STREET**  
Street  
**EMERYVILLE CA**  
City State  
**6/21/94 R. HAFFNER 510-652-2979**  
Placed Date Contact

DATE MATERIAL RECEIVED: <b>6/22/94</b>	PACKING LIST NO. <b>NO SLIP</b>
DATE OF INSPECTION <b>6/22/94</b>	RECEIVAL & INSPECTION CERTIFIED BY: <b>J. BOEHM</b>
CARRIER <b>LBL</b>	DELIVERY RECEIPT NUMBER

HAZARD REVIEW - Enter one of the letters in the box below.

<b>N</b>	C. Chemical	L. Laser	S. Service Contracts
	R. Radiological	M. Microwave	O. Other Hazards
	B. Biological	X. X-Ray	N. No Hazards

SHIP BY **1** SHIP FROM **1** F.O.B. **2**

ITEM NO.	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
1	<b>ANALYZE SAMPLES FOR BROMINE CONTENT</b>	1 EA	150.00	\$150.00	1
Total PO Amount <b>\$150.00</b>					

REMARKS:

<u>AVAILABLE FROM:</u>	<u>DOCUMENTATION:</u>
DB or WB <u>Y/N/A</u>	Foreign <u>Y/N</u>
GSA <u>Y/N/A</u>	Debarred <u>Y/N</u>
FSS <u>Y/N/A</u>	Sole Source Basis <u>8</u>
State, UC, LBL <u>Y/N/A</u>	Price Reasonableness <u>7</u>
Blind-Prison <u>Y/N/A</u>	Price List No. _____
	Price List Date _____

Authorized By *John R. Mehren*  
PURCHASING



PRINT NUMBERS

UNIVERSITY OF CALIFORNIA  
LAWRENCE BERKELEY LAB

SERIAL NUMBER

REQUEST FOR PROCUREMENT

REQUESTER K. MIRK DATE REQUESTED 6-27-94

DELIVER TO Paul Wong 77A DATE NEEDED 7-1-94

BLDG 77A ROOM West End PHONE NUMBER 5901

ACCOUNT NO. 8052-21 AUTHORIZED SIGNATURE Russell Will

QUANTITY	DESCRIPTION	APPROX PRICE
50ea	Expansion Anchor Size: 1/2" - 13 UNC Mtl. Carbon Steel HILTI HDI 1/2 Part # 000457549	\$44
1ea	HST 1/2" Setting Tool	\$2
25ea	Expansion Anchor Size: 5/8" - 11 UNC Mtl: carbon steel HILTI HDI 5/8 Part # 000457556	\$36
1ea	HST 5/8" Setting Tool	\$2

VENDOR HILTI Center  
 ADDRESS 190 Mississippi  
 CITY San Francisco STATE CA  
 PHONE NUMBER (800) 879-8000  
 CONTACT \_\_\_\_\_  
 REMARKS \_\_\_\_\_

SHIP CODE \_\_\_\_\_  
 TOTAL COST \_\_\_\_\_  
 P.O. NO. \_\_\_\_\_  
 TERMS \_\_\_\_\_  
 PICK UP DATE \_\_\_\_\_  
 TIME AFTER \_\_\_\_\_  
 CLOSED DURING LUNCH YES  NO   
 VEHICLE \_\_\_\_\_

REQUISITION NUMBER



REQUESTED BY <b>R. WELLS</b>	BLDG. <b>70A - 3307</b>	ROOM <b>70</b>	DELIVERY TO BLDG. <b>314</b>	RM. <b>314</b>	NOTIFY <b>R. WELLS 7925</b>	EXT.	HOLD FOR ACCT./J.O.
APPROVED BY <i>Russell Wells</i>	ACCOUNT NO. <b>8052-24</b>	AMOUNT OF P.O.	SELLER CODE	STAT. CODE	SELLER'S NAME		

**UNIVERSITY OF CALIFORNIA**

**PURCHASE REQUISITION**

**FOR CONTRACT NO. DE-AC03-76SF00098  
WITH THE  
DEPARTMENT OF ENERGY**

**REQUISITIONER-RETAIN AS FILE COPY**

ORIZATION	\$10,000 <input type="checkbox"/>	\$50,000 <input type="checkbox"/>	OVER <input type="checkbox"/>	SB <input type="checkbox"/>	BB <input type="checkbox"/>
BUYER	CODE	ORDER NO.	REQ. DATE <b>10-12-94</b>	DATE NEEDED <b>11-21-94</b>	
COST NOT TO EXCEED <b>\$ 3000</b>	REFER BIDS TO	REQ. NO. <b>410271</b>	TERMS: FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER.		

**SHADED AREA FOR PURCHASING USE ONLY.**

SELLER \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Placed \_\_\_\_\_ Date \_\_\_\_\_ Contact \_\_\_\_\_

DATE MATERIAL RECEIVED:	PACKING LIST NO.
DATE OF INSPECTION	RECEIVAL & INSPECTION CERTIFIED BY:
CARRIER	DELIVERY RECEIPT NUMBER

**HAZARD REVIEW - At least one box must be checked:**

<input type="checkbox"/> Chemical	<input type="checkbox"/> Laser	<input type="checkbox"/> Service Contracts
<input type="checkbox"/> Radiological	<input type="checkbox"/> Microwave	<input type="checkbox"/> Other Hazards
<input type="checkbox"/> Biological	<input type="checkbox"/> X-Ray	<input type="checkbox"/> No Hazards

**COLUMNS BELOW FOR PURCHASING, RECEIVING AND ACCOUNTING.**

REQUISITIONERS MAY USE PRICE COLUMNS IF TOTAL ORDER ESTIMATE EXCEEDS \$1000.00

SHIP BY	SHIP FROM	F.O.B.	PROMISED DELIVERY TO CARRIER
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ITEM NO.	LAB CATALOG NO. IF APPLICABLE	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
		RODGE'S CYLINDER ELECTRIC ACTUATOR, IDCORP P/N RS22995A-42- MSS-5C	1			
2		REED SWITCH, NORMALLY OPEN, "RPS-1 FOR ITEM 1	1			
3		REED SWITCH, NORMALLY CLOSED "RPS-2 FOR ITEM 1.	2			
		FOR USE WITH EXISTING COMPACTOR AX DRIVE VENDOR WESTERN TECHNOLOGY MARKETING (415) 968-2200 STEVE SHIELDS				

REMARKS:



REASON: <i>PER USER/REQUESTERS.</i>	STAT. CODE
	AMOUNT OF CHANGE
	NEW SELLER'S CODE

BUYER <i>CAMPBELL 161</i>	CODE <i>48866A2</i>	ORDER NO.	ORIGINAL P.O. DATE <i>5-8-94</i>
REQUESTER <i>WELLS</i>	ACCOUNT NO. <i>8052-24</i>	INTERNAL <input checked="" type="checkbox"/>	TYPE ORDER <input type="checkbox"/>
THIS ORDER IS:	ACTIVE <input checked="" type="checkbox"/> INACTIVE <input type="checkbox"/>	NO RECEIVING COPY <input type="checkbox"/>	NO REQUESTER'S COPY <input type="checkbox"/>

**UNIVERSITY OF CALIFORNIA**  
 FOR CONTRACT NO. W-7405-ENG-48 OR  
 CONTRACT DE-AC03-76SF00098 WITH  
 THE DEPARTMENT OF ENERGY  
**CHANGE ORDER**

REQUISITIONER COPY

USE—INFORMATION  
 DISPOSITION—OPTIONAL

*ALLIED SIGNAL  
 ATTN: SCOTT PETERSON*

CHANGE ORDER NO. 1 DATE OF ISSUE 10-26-94

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE	PROMISED DELY TO CARRIER
		THIS ORDER COVERS <i>G1PCR MATERIAL</i>				
		IN THE AMOUNT OF \$ <i>2,743.04.</i>				
		THIS ORDER IS HEREBY AMENDED TO AS FOLLOWS:				
		THE SPECIFICATION, QUANTITY, AND PRICE				
		OF ITEM 1 ARE HEREBY AMENDED:				
<i>1</i>		<i>G1PCR COPPER CLAD, 1 OZ/2 OZ, 36" x 48", <del>0.059</del> ± 0.005". 0.059</i>	<i>10 EA</i>	<i>57.54 EA</i>	<i>575.40</i>	<i>11-28-94</i>
		<i>ITEMS 2, 3, AND 4</i>				
		<i>ARE HEREBY CANCELLED.</i>				
		ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME				

CC: SCOTT PETERSON, FAX # 612/897-6556

WRITTEN BY JOHN BERDOVITZ AUTHORIZED BY A. Campbell

PURCHASING MANAGER OR DESIGNEE



ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 10/28/94 Account No. 8052-24 Serial No. 034008  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: J. BOEHM Ext. 6506 Refer Questions To: BOEHM/BERCOVITZ Ext. \_\_\_\_\_  
 Job Requested By: (Client) J. BERCOVITZ Ext. 5833  
 Design Check By: (Engineer Responsible) \_\_\_\_\_ Ext. \_\_\_\_\_  
 Production Check By: [Signature] Date 10.31.94 Authorized By: [Signature] Date OCT 23 94  
 Job Description: STAR Residual Risks Accepted \_\_\_\_\_  
 By: \_\_\_\_\_

WORK DISTRIBUTION							
CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	DWGS.
MECH. ENG.				MECH. SHOP OFF.	1	2	2
MECH. TECH. OFF.				ASS'Y SHOP			
SHOP 25				MACH. SHOP	15		
SHOP 71				PAINT SHOP			
SHOP				SHEET METAL			
SHOP				WELDING SHOP			
ELECT. ENG.				C&M OFFICE			
COORDINATING				CARPENTERS			
DRAFTING				ELECTRICIANS			
ELECT. FAB.				LABORERS			
ELECT. INSTALL				MAINT. TECHS			
ELECT. MAINT.				PAINTERS			
ELECT. Q.A.				PLUMBERS			
OPER. CHECK							
TECH. SUPP.				TOTAL HRS	16	AT	65 HR.
ELEC-MECH. 80				LABOR	\$	1,040.	-
SAFETY SHOPS				MATERIAL	\$	60.	-
SAFETY/ENVIRONMENTAL				TOTAL	\$	1,100.	-
ANALYSIS				FABRICATION:			
BY: _____				<input checked="" type="checkbox"/> LBL SHOPS <input type="checkbox"/> OUTSIDE SHOPS Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000			
PRELIM. _____				DATE: _____			
FINAL _____							

REFERENCE DISTRIBUTION					PRINTS	
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.		
<u>R. WELLS</u>	<u>70A</u>	<u>3307</u>	<u>1</u>	<u>-</u>		
<u>J. BERCOVITZ</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>1</u>		
<u>J. BOEHM</u>	<u>"</u>	<u>4</u>	<u>1</u>	<u>2</u>		
<u>J. WIRTH</u>	<u>77</u>	<u>105</u>	<u>1</u>	<u>1</u>		

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

JOB ORDER

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME	DESCRIPTION	INSTRUCTIONS
1		24A0832-1	2	HEADER PORT BRACKET, R		
2		24A0832-2	2	" " " "		
3		24A0841	4	SUPPT BRKT, 1st COOLING TUBE		
4		24A0851	4	" " 6th		
5		24A0861	4	" " 11th		
6		24A0871	4	" " 13th		
Shop to supply material						



PURCHASE ORDER REFERRAL

TO: ACCOUNTING /  BERKELEY  LIVERMORE

PURCHASE ORDER NO. 3847702 SELLER'S NAME BUCKBEE MEARS

PRICE CHANGE:  INCREASE  DECREASE ITEMS \_\_\_\_\_

QUANTITY CHANGE:  "  " ITEMS \_\_\_\_\_

NAME CHANGE: \_\_\_\_\_

NOT AUTHORIZED ON P. O. \_\_\_\_\_

OTHER: \_\_\_\_\_

INVOICE ATTACHED DATE \_\_\_\_\_ CONNIE BERRY / LIZ ACCOUNTS PAYABLE

REPLY

FORMAL CHANGE ORDER IN PROCESS  PURCHASE ORDER IS CORRECT (ADDITIONAL CHARGES NOT AUTHORIZED)

DATE \_\_\_\_\_ PURCHASING DIVISION

INTERNAL CHANGE ORDER No. 2

CHANGE PURCHASE ORDER TO AGREE WITH THE INVOICE ON ITEMS MARKED.

- CASH DISCOUNT  SHIP VIA  ORDER QUANTITY  TRANSPORTATION TERMS
 SELLER'S NAME  TOTAL PRICE  ADDITIONAL CHARGE

DESCRIPTION OF CHANGE: ITEM 2 IS HEREBY ADDED, AS FOLLOWS:

ADDITIONAL PROTOTYPE OUTER SECTOR PAD PLANE PC BOARD (CAN BE FABRICATED

FROM LAMINATE CONTAINING BROMINE, BUT MUST 1 \$1614.00
2. OTHERWISE MEET SPECS IN STAR NOTE 128A). EA EA \$1,614.00

REASON FOR CHANGE: \_\_\_\_\_

PER 7-6-94 MEMO FROM USER R. WELLS TO SHIP NLT 7-22-94

C: MAXINE PFEIFFER
GABE RUIZ
RUSS WELLS

WRITTEN BY

DATE 7-7-94 ALAN CAMPBELL PURCHASING DIVISION AUTHORIZATION



ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 23 MAR 94 Account No. 8052-24 Serial No. 033639  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: Ext. J. BOEHM 6506 Refer Questions To: Ext. BERCOVITZ / BOEHM  
 Job Requested By: (Client) Ext. J. BERCOVITZ 5833  
 Design Check By: (Engineer Responsible) Ext. \_\_\_\_\_

Production Check By: Date 3-23-94 Authorized By: Date MAR 23, 94  
 Job Description: STAR Residual Risks Accepted By: \_\_\_\_\_

OSECT COOLMAN 1  
BONDING FIXTURE

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	<u>J. WIRTH</u>	<u>77</u>	<u>135</u>	<u>590</u>	<u>4/15/94</u>
ASSEMBLY					

REFERENCE DISTRIBUTION		PRINTS		
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.
<u>R. WELLS</u>	<u>70A</u>	<u>3307</u>	<u>1</u>	<u>—</u>
<u>J. BERCOVITZ</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>1</u>
<u>J. BOEHM</u>	<u>"</u>	<u>"</u>	<u>1</u>	<u>2</u>
<u>J. WIRTH</u>	<u>77</u>	<u>125</u>	<u>1</u>	<u>1</u>

WORK DISTRIBUTION							
CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	DWGS.
MECH. ENG.				MECH. SHOP OFF.	<u>1</u>	<u>2</u>	<u>2</u>
MECH. TECH. OFF.				ASS'Y SHOP			
SHOP 25				MACH. SHOP	<u>24</u>		
SHOP 71				PAINT SHOP			
SHOP				SHEET METAL			
SHOP				WELDING SHOP			
				<u>CNC</u>	<u>5</u>		
ELECT. ENG.				C&M OFFICE			
COORDINATING				CARPENTERS			
DRAFTING				ELECTRICIANS			
ELECT. FAB.				LABORERS			
ELECT. INSTALL				MAINT. TECHS			
ELECT. MAINT.				PAINTERS			
ELECT. Q.A.				PLUMBERS			
OPER. CHECK							
TECH. SUPP.							
ELEC-MECH. 80							
SAFETY SHOPS							
SAFETY/ENVIRONMENTAL							
ANALYSIS							
BY: _____				DATE: _____			
PRELIM. _____				FINAL _____			

TOTAL HRS	<u>30</u> AT <u>65</u> HR.
LABOR	\$ <u>1950</u> -
MATERIAL	\$ <u>150</u> -
TOTAL	\$ <u>2100</u> -

FABRICATION:  
 LBL SHOPS  
 OUTSIDE SHOPS  
 Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

PRINT DIVISION  
 MECH ENGR DEPT  
 LBL. REPERE  
 MAR 23 2 54 PM '94

JOB ORDER

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME	DESCRIPTION	INSTRUCTIONS
<u>1</u>		<u>24A4266</u>	<u>1</u>	<u>BONDING FIXTURE</u>		
						<u>SHOP 77 to obtain material</u>
						<u>NOTE 1 PTFE coating will be done by outside vendor after inspection.</u>



ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 03/17/94 Account No. 8052-24 Serial No. 333630  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: J. BOEHM 6506 Ext. Refer Questions To: BOEHM/BERCOVITZ Ext.

Job Requested By: (Client) J. BERCOVITZ Ext. 6506/5833

Design Check By: (Engineer Responsible) \_\_\_\_\_ Ext.

Production Check By: [Signature] Date 3-19-94 Authorized By: [Signature] Date 9/15/17

Job Description: STAR Residual Risks Accepted By: \_\_\_\_\_

SECTORS

THREAD SUPPORT

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	<u>J. WIRTH</u>	<u>77</u>	<u>141</u>	<u>5905</u>	<u>4/9/94</u>
ASSEMBLY					

REFERENCE DISTRIBUTION		PRINTS	
SEND COPIES TO:	Bldg.	Rm.	J.O. DWGS.
<u>R. ELLIS</u>	<u>70A</u>	<u>3307</u>	<u>1</u>
<u>J. BOEHM</u>	<u>"</u>	<u>"</u>	<u>2</u>
<u>J. BERCOVITZ</u>	<u>"</u>	<u>"</u>	<u>1</u>
<u>J. WIRTH</u>	<u>77</u>	<u>125</u>	<u>1</u>

WORK DISTRIBUTION					
CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.
MECH. ENG.				MECH. SHOP OFF.	
MECH. TECH. OFF.				ASS'Y SHOP	
SHOP 25				MACH. SHOP	
SHOP 71				PAINT SHOP	
SHOP				SHEET METAL	
SHOP				WELDING SHOP	
ELECT. ENG.				C&M OFFICE	
COORDINATING				CARPENTERS	
DRAFTING				ELECTRICIANS	
ELECT. FAB.				LABORERS	
ELECT. INSTALL				MAINT. TECHS	
ELECT. MAINT.				PAINTERS	
ELECT. Q.A				PLUMBERS	
OPER. CHECK					
TECH. SUPP.				TOTAL HRS	AT HR.
ELEC MECH. 80				LABOR	\$
SAFETY SHOPS				MATERIAL	\$
				TOTAL	\$
SAFETY/ENVIRONMENTAL				FABRICATION:	
ANALYSIS				<input type="checkbox"/> LBL SHOPS	
BY: _____ DATE: _____				<input checked="" type="checkbox"/> OUTSIDE SHOPS	
PRELIM. _____				Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000	
FINAL _____					

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

PRINT DIVISION  
 MECH ENGR 1  
 LBL PERKEL  
 JUN 21 8 26 AM '94

JOB ORDER

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME	DESCRIPTION	INSTRUCTIONS
1		24A4242	2500	WIRE MOUNT	THREAD SUPPORT, 10-32	
2		24A4252	200	WIRE MOUNT	THREAD SUPPORT, .25-20	
					MATERIAL TO BE CERTIFIED	
					RFQ, estimated cost \$5,800	
					REF # 7340-53	







ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 03/14/94 Account No 8052-24 Serial No. 033622  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: Ext. J. BOEHM 6506 Refer Questions To: Ext. BERCOVITZ/BOEHM  
 Job Requested By: (Client) Ext. J. BERCOVITZ 5833  
 Design Check By: (Engineer Responsible) Ext. \_\_\_\_\_  
 Production Check By: Date J. Alhmer 3-17-94 Authorized By: Date J. Alhmer 3-17-94  
 Job Description: STAR Residual Risks-Accepted By: \_\_\_\_\_

WORK DISTRIBUTION							
CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	DWGS.
MECH. ENG.				MECH. SHOP OFF.	1	2	2
MECH. TECH. OFF.				ASS'Y SHOP			
SHOP 25				MACH. SHOP	6		
SHOP 71				PAINT SHOP			
SHOP				SHEET METAL			
SHOP				WELDING SHOP			
				NC	33		
ELECT. ENG.				C&M OFFICE			
COORDINATING				CARPENTERS			
DRAFTING				ELECTRICIANS			
ELECT. FAB.				LABORERS			
ELECT. INSTALL				MAINT. TECHS			
ELECT. MAINT.				PAINTERS			
ELECT. Q.A.				PLUMBERS			
OPER. CHECK							
TECH. SUPP.				TOTAL HRS	40	AT	60HR.
ELEC-MECH. 80				LABOR	\$	2400	-
				MATERIAL	\$	100	
				TOTAL	\$	2500	-
SAFETY SHOPS				FABRICATION:			
SAFETY/ENVIRONMENTAL				<input checked="" type="checkbox"/> LBL SHOPS <input type="checkbox"/> OUTSIDE SHOPS			
ANALYSIS				Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000			
BY: _____				DATE: _____			
PRELIM. _____				MECH. SHOP LABOR			
FINAL _____				EXCEEDS \$1000			

REFERENCE DISTRIBUTION					
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.	
R. WELLS	70A	3307	1	-	
J. BERCOVITZ	"	"	1	1	
J. BOEHM	"	"	1	2	
J. WIRTH	77	125	1	1	

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

PRINT DIVISION  
 ENGR DEPT  
 7 05 AM '94

JOB ORDER

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUAN-TITY	NAME - DESCRIPTION	INSTRUCTIONS
1		24A4166	1	LOWER HEADER, RIGHT	SHOP FURNISH MAT'L
2		24A4174	1	UPPER HEADER, RIGHT	1X.5X.065 TUBE, SEE J. WIRTH
3		24A4183	2	HEADER PORT, RIGHT	SHOP FURNISH MAT'L
4		24A4193	1	DRAIN PORT, RIGHT	"



REQUESTER <b>JOHN WIRTH</b>	BLDG. & ROOM <b>77-125</b>	DELIVER TO: <b>77-125</b>	BLDG. ROOM <b>77-125</b>	NOTIFY <b>Doug Morton</b>	EXTENSION <b>5904</b>	HOLD FOR/J.O.
APPROVED BY <i>[Signature]</i>	ACCOUNT NO. <b>8052-24</b>	AMOUNT OF P.O.	STAT. CODE	REQ. NO. <b>720947</b>		

AUTHORIZATION \$10,000  \$50,000  OVER

BUYER	CODE	ORDER NO.	REQ. DATE <b>2/1/94</b>	DATE NEEDED <b>3/10/94</b>
COST NOT TO EXCEED <b>\$10200.00</b>			TERMS:	

**UNIVERSITY OF CALIFORNIA**  
PURCHASE REQUISITION  
FOR CONTRACT NO. DE-AC03-76SF00098  
WITH THE  
DEPARTMENT OF ENERGY

RETAIN LAST COPY. SEND ALL  
OTHER COPIES TO PURCHASING

SHADED AREA FOR PURCHASING USE ONLY.

SELLER \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Placed \_\_\_\_\_ Date \_\_\_\_\_ Contact \_\_\_\_\_

HAZARD REVIEW - Enter one of the letters in the box below.

<input type="checkbox"/>	C. Chemical	L. Laser	S. Service Contracts
	R. Radiological	M. Microwave	O. Other Hazards
	B. Biological	X. X-Ray	N. No Hazards

DATE MATERIAL RECEIVED:	PACKING LIST NO.
DATE OF INSPECTION	RECEIVAL & INSPECTION CERTIFIED BY:
CARRIER	DELIVERY RECEIPT NUMBER

SHIP BY	SHIP FROM	F.O.B.	PROMISED DELIVERY TO CARRIER
---------	-----------	--------	------------------------------

ITEM NO.	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
1	<b>8" GRADE A GRANITE SURFACE PLATES PER ATTACHED DRAWING</b>	<b>6 EA</b>			
2	<b>STATIONARY STEEL STANDS FOR ABOVE SURFACE PLATES</b>	<b>6 EA</b>			
	<i>70-257</i>				

REMARKS: \_\_\_\_\_

Authorized By \_\_\_\_\_ PURCHASING







ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 10/26/93 Account No. 8052-24 Serial No. 033325  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: J. BOEHM 6506 Refer Questions To: BOEHM 6506  
 Job Requested By: (Client) J. BERCOUITZ Ext. 5833  
 Design Check By: (Engineer Responsible) \_\_\_\_\_ Ext. \_\_\_\_\_

Production Check By: [Signature] Date 10-26-93 Authorized By: [Signature] Date 11/26/93  
 Job Description: RHIC-STAR-TPC Residual Risks Accepted By: \_\_\_\_\_

PARTIAL SECTOR TEST  
PARTIAL STRONGBACK

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	J. WIRTH	77		SPD	11/15/93
ASSEMBLY					

REFERENCE DISTRIBUTION		PRINTS	
SEND COPIES TO:	Bldg.	Rm.	J.O. DWGS.
J. BERCOUITZ	70A	3307	1 1
J. BOEHM	"	"	1 2
R. WELLS	"	"	1 -

WORK DISTRIBUTION							
CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	DWGS.
MECH. ENG.				MECH. SHOP OFF.	1	2	2
MECH. TECH. OFF.				ASS'Y SHOP			
SHOP 25				MACH. SHOP	40		
SHOP 71				PAINT SHOP			
SHOP				SHEET METAL			
SHOP				WELDING SHOP			
ELECT. ENG.				C&M OFFICE			
COORDINATING				CARPENTERS			
DRAFTING				ELECTRICIANS			
ELECT. FAB.				LABORERS			
ELECT. INSTALL				MAINT. TECHS			
ELECT. MAINT.				PAINTERS			
ELECT. Q.A.				PLUMBERS			
OPER. CHECK							
TECH. SUPP.							
ELEC-MECH. 80							
				TOTAL HRS	41	AT	80 HR.
				LABOR	\$	3,280	
				MATERIAL	\$	70	
				TOTAL	\$	3,350	
SAFETY SHOPS				FABRICATION:			
SAFETY/ENVIRONMENTAL				<input checked="" type="checkbox"/> LBL SHOPS			
ANALYSIS				<input type="checkbox"/> OUTSIDE SHOPS			
BY: _____ DATE: _____				Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000			
PRELIM. _____							
FINAL _____							

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

JOB ORDER

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME - DESCRIPTION - INSTRUCTIONS
1		24A3776	1	PARTIAL STRONGBACK SECTION
				PRINT DIVISION MECH ENGR DEPT LBL. BERKELEY Oct 26 1 38 PM '93



REQUESTED BY <b>C. R. BARNEY</b>	BLDG. <b>70</b>	ROOM <b>319</b>	DELIVERY TO BLDG. <b>70A</b>	RM. <b>3307</b>	NOTIFY <b>R. WEDENBACH</b>	EXT. <b>7031</b>	HOLD FOR ACCT./J.O.
APPROVED BY <i>[Signature]</i>	ACCOUNT NO. <b>8052-24</b>	AMOUNT OF P.O.	SELLER CODE	STAT. CODE	SELLER'S NAME		

ORIZATION \$10,000  \$50,000  OVER  SB  BB

**UNIVERSITY OF CALIFORNIA**

**PURCHASE REQUISITION**

**FOR CONTRACT NO. DE-AC03-76SF00098  
WITH THE  
DEPARTMENT OF ENERGY**

**REQUISITIONER-RETAIN AS FILE COPY**

BUYER	CODE	ORDER NO.	REQ. DATE <b>12/1/93</b>
COST NOT TO EXCEED <b>\$75.00</b>		REFER BIDS TO	DATE NEEDED <b>12/23/93</b>
		REQ. NO. <b>104333</b>	TERMS: FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER.

**SHADED AREA FOR PURCHASING USE ONLY.**

SELLER \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Placed \_\_\_\_\_ Date \_\_\_\_\_ Contact \_\_\_\_\_

DATE MATERIAL RECEIVED:	PACKING LIST NO.
DATE OF INSPECTION	RECEIVAL & INSPECTION CERTIFIED BY:
CARRIER	DELIVERY RECEIPT NUMBER

HAZARD REVIEW - At least one box must be checked:

<input type="checkbox"/> Chemical	<input type="checkbox"/> Laser	<input type="checkbox"/> Service Contracts
<input type="checkbox"/> Radiological	<input type="checkbox"/> Microwave	<input type="checkbox"/> Other Hazards
<input type="checkbox"/> Biological	<input type="checkbox"/> X-Ray	<input checked="" type="checkbox"/> No Hazards

COLUMNS BELOW FOR PURCHASING, RECEIVING AND ACCOUNTING.  
REQUISITIONERS MAY USE PRICE COLUMNS IF TOTAL ORDER ESTIMATE EXCEEDS \$1000.00

SHIP BY	SHIP FROM	F.O.B.	PROMISED DELIVERY TO CARRIER
---------	-----------	--------	------------------------------

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
		REVISION K EPROM FOR ENCAD MODEL 840 (I) NOVAJET PLOTTER				
		AVAILABLE ONLY FROM ENCAD, INC (800) 356-2808 FAX: (619) 578-4613				

REMARKS: **SEE ATTACHED ORDER FORM**



R. Wells

12/17/93

REQUESTED BY C. Lawrence/F. Ingram	BLDG 90	ROOM 2148	DELIVERY TO BLDG 46	RM. 161	NOTIFY F. Ingram	EXT. 6870	HOLD FOR ACCT./JO.
APPROVED BY Russell Wells	ACCOUNT NO. 8052-24	AMOUNT OF P.O. 1550.00	SELLER CODE	STAT. CODE R23200	SELLER'S NAME		

AUTHORIZATION	\$10,000 <input type="checkbox"/>	\$50,000 <input checked="" type="checkbox"/>	OVER <input type="checkbox"/>	SB <input type="checkbox"/>	BB <input type="checkbox"/>
BUYER Riley	CODE 242	ORDER NO. 11826A	REQ. DATE 12/2/93	DATE NEEDED 12/17/93	
COST NOT TO EXCEED \$1535.00	REFER BIDS TO	REQ. NO. 116793	TERMS: FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER. 7		

**UNIVERSITY OF CALIFORNIA**  
PURCHASE REQUISITION  
FOR CONTRACT NO. DE-AC03-76SF00098  
WITH THE  
DEPARTMENT OF ENERGY

**REQUISITIONER - FOR INFORMATION PURPOSES**

SHADED AREA FOR PURCHASING USE ONLY.

SELLER: Helios Systems

Street: 1996 Lundy

City: San Jose CA State: CA

Placed: 12/8/93 Date: Julie Contact: 800-366-0283

HAZARD REVIEW - At least one box must be checked:

<input type="checkbox"/> Chemical	<input type="checkbox"/> Laser	<input type="checkbox"/> Service Contracts
<input type="checkbox"/> Radiological	<input type="checkbox"/> Microwave	<input type="checkbox"/> Other Hazards
<input type="checkbox"/> Biological	<input type="checkbox"/> X-Ray	<input checked="" type="checkbox"/> No Hazards

12/16/93

DATE MATERIAL RECEIVED: 12/	PACKING LIST NO. 77874
DATE OF INSPECTION 15/93	RECEIVAL & INSPECTION CERTIFIED BY: R.M.
CARRIER UPS	DELIVERY RECEIPT NUMBER

COLUMNS BELOW FOR PURCHASING, RECEIVING AND ACCOUNTING.

REQUISITIONERS MAY USE PRICE COLUMNS IF TOTAL ORDER ESTIMATE EXCEEDS \$1000.00

SHIP BY 3	SHIP FROM San Jose	F.O.B. 2	PROMISED DELIVERY TO CARRIER
--------------	-----------------------	-------------	------------------------------

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
	<del>740-0732</del>	32 Mb Memory Upgrade	1ea	1550.00	1550.00	1ea
	740-2732	For HP 720 Computer			1550.00	
<p>also used w/ 735 + lower</p> <p>price increase in past 30 days</p> <p>Vendor: Helios Systems 1-800-366-0283</p>						



FABRICATION

05/19/94

REQUESTER <b>BERCOVITZ</b>	BLDG. & ROOM <b>70 257</b>	DELIVER TO: <b>ASSEMBLY SHOP 77</b>	BLDG. ROOM <b>BERCOVITZ X5833</b>	NOTIFY <b>BERCOVITZ X5833</b>	EXTENSION <b>X5833</b>	HOLD FOR
APPROVED BY <b>FLEISCHMAN</b>	ACCOUNT NO. <b>8052-24-1</b>	AMOUNT OF P.O. <b>108,882.36</b>	STAT. CODE <b>6822200</b>	REQ. NO. <b>4102-60</b>	DEPT. I.D./J.O.	

SUBMIT CORRESPONDENCE/QUESTIONS TO BUYER:  1 CYCLOTRON RD., BERKELEY, CALIF. 94720  BOX 5012 LIVERMORE, CALIF. 94550

BUYER <b>CAMPBELL</b>	CODE <b>161</b>	ORDER NO. <b>3847702</b>	SELLER CODE	DATE <b>12/23/93</b>	ADRIENE	FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER.
RATED ORDER <b>DO E2</b>	CERT. UNDER D.P.A.S. REG. <b>1</b>	This is a rated order certified for national defense use, and you are required to follow all the provisions of the Defense Priorities and Allocations System regulation (15 CFR Part 350).		TERMS: (AS CODED)		O - 1/2% 10TH & 25TH 1 - 1/2% 10 DAYS A - 1/2% 15 DAYS B - 1/2% 20 DAYS C - 1% 10TH & 25TH 2 - 1% 10 DAYS 9 - 1% 10TH PROX. D - 1% 15TH E - 1% 20 DAYS 3 - 1% 30 DAYS F - 2% 10TH & 25TH 4 - 2% 10TH PROX. G - 2% 15TH 5 - 2% 10 DAYS H - 2% 20 DAYS 6 - 2% 30 DAYS 7 - NET 30 DAYS 8 - AS SHOWN

TO  
**BUCKBEE MEARS**  
**ATTN MS. MAXINE PFEIFFER**  
**245 EAST 6TH STREET**  
**ST PAUL, MN 55101**

**UNIVERSITY OF CALIFORNIA**  
**PURCHASE ORDER**  
**FOR CONTRACT NO. W-7405-ENG. 48**  
**OR CONTRACT NO. DE-AC03-76SF00098**  
**WITH THE DEPARTMENT OF ENERGY**

FOR RESALE-State Sales Tax should not be charged, as the University holds State Sales Tax Permit SR CH 21-835970 for deliveries to Lawrence Berkeley Laboratory and Permit SR-CHA 21-135323 for deliveries to Lawrence Livermore National Laboratory.

SHIP TO  
**UC LAWRENCE BERKELEY LAB**  
**FOR THE U S DEPARTMENT OF ENERGY**  
**EMERYVILLE FACILITY**  
**1450 64TH ST 3847702**  
**EMERYVILLE, CA 94608**

MAIL INVOICE IN DUPLICATE TO  
 UNIVERSITY OF CALIFORNIA  
 LAWRENCE LIVERMORE NATIONAL LABORATORY  
 Accounting Office - P.O. BOX 5001  
 LIVERMORE, CALIFORNIA 94550

The Purchase Order Number shown above must appear on your invoice to facilitate payment processing.

CONFIRMING TELEPHONE ORDER TO MS. PFEIFFER ON 12/14/93 DO NOT DUPLICATE

SHIP VIA (as coded) 1. PICKUP 2. PARCEL POST 3. UPS 4. FEDERAL EXP. 1 0. BEST 3-DAY AIR	5. MOTOR FREIGHT 6. AIR FREIGHT 7. AIR PARCEL POST 8. FEDERAL EXP. 2 9. AIR FRT FORWARDER	TRANSPORTATION TERMS (as coded) 1. ACCOUNT OF UNIVERSITY SEE ARTICLE V ON REVERSE 2. ACCOUNT OF SELLER PREPAID 3. SEE BODY OF ORDER 1. ST. PAUL, MN	F.O.B. (as coded) 1. DESTINATION 2. SHIPPING POINT 3. SHIP PT. FREIGHT ALLOWED 4.
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ITEM NO.	LAB CATALOG NO. IF APPLICABLE	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE	PROMISED DEL TO CARRIER
		-FABRICATION-				
		BUCKBEE MEARS, HEREIN AND ON THE REVERSE HEREOF CALLED "SELLER", AGREES TO FURNISH TO UNIVERSITY'S LAWRENCE BERKELEY LABORATORY, HEREIN AND IN ATTACHMENTS HERETO CALLED "UCLBL", THE FOLLOWING IN STRICT ACCORDANCE WITH THE TERMS, CONDITIONS AND PROVISIONS OF THIS ORDER:				
1		PRINTED CIRCUIT (PC) BOARDS, 23 OF EACH SIZE, IN ACCORDANCE WITH UCLBL SPECIFICATION NO. M7430 DATED 9-22-93.	1 LOT	108882.36 LOT	108882.36	05/16/94
		UCLBL TECHNICAL CONTACT: ----- RUSSELL WELLS, 510/486-7925				

--CONTINUED ON PAGE 2--

The Terms and Conditions On The Reverse Side  
 Constitute A Part Of This Order

Authorized by \_\_\_\_\_

UNIVERSITY OF CALIFORNIA



REQUESTER <b>BERCOVITZ</b>	BLDG. & ROOM <b>70 257</b>	DELIVER TO: <b>ASSEMBLY SHOP 77</b>	BLDG. ROOM NOTIFY <b>BERCOVITZ</b>	EXTENSION <b>X5833</b>	HOLD FOR
APPROVED BY <b>FLEISCHMAN</b>	ACCOUNT NO. <b>8052-24-1</b>	AMOUNT OF P.O. <b>108,882.36</b>	STAT. CODE <b>6822200</b>	REQ. NO. <b>4102-60</b>	DEPT. I.D./J.O.

SUBMIT CORRESPONDENCE/QUESTIONS TO BUYER:  1 CYCLOTRON RD., BERKELEY, CALIF. 94720  BOX 5012 LIVERMORE, CALIF. 94550

BUYER <b>CAMPBELL</b>	CODE <b>161</b>	ORDER NO. <b>3847702</b>	SELLER CODE	DATE <b>12/23/93</b>	ADRIENE	FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER.
RATED ORDER <b>DO E2</b>	CERT. UNDER D.P.A.S. REG. <b>1</b>	This is a rated order certified for national defense use, and you are required to follow all the provisions of the Defense Priorities and Allocations System regulation (15 CFR Part 350).			TERMS: (AS CODED)	O - 1/2 10TH & 25TH 1 - 1/2 10 DAYS A - 1/2 15 DAYS B - 1/2 20 DAYS C - 1 10TH & 25TH 2 - 1 10 DAYS 9 - 1 10TH PROX. D - 1 15TH E - 1 20 DAYS 3 - 1 30 DAYS F - 2 10TH & 25TH 4 - 2 10TH PROX. G - 2 15TH 5 - 2 10 DAYS H - 2 20 DAYS 6 - 2 30 DAYS 7 - NET 30 DAYS 8 - AS SHOWN

TO  
**BUCKBEE MEARS**

## UNIVERSITY OF CALIFORNIA PURCHASE ORDER

FOR CONTRACT NO. W-7405-ENG. 48  
OR CONTRACT NO. DE-AC03-76SF00098  
WITH THE DEPARTMENT OF ENERGY

FOR RESALE-State Sales Tax should not be charged, as the University holds State Sales Tax Permit SR CH 21-835970 for deliveries to Lawrence Berkeley Laboratory and Permit SR-CHA 21-135323 for deliveries to Lawrence Livermore National Laboratory.

SHIP TO

PAGE 2

MAIL INVOICE IN DUPLICATE TO  
UNIVERSITY OF CALIFORNIA  
LAWRENCE LIVERMORE NATIONAL LABORATORY  
Accounting Office - P.O. BOX 5001  
LIVERMORE, CALIFORNIA 94550

The Purchase Order Number shown above must appear on your invoice to facilitate payment processing.

SHIP VIA (as coded) 1. PICKUP 2. PARCEL POST 3. UPS 4. FEDERAL EXP. 1 0.	5. MOTOR FREIGHT 6. AIR FREIGHT 7. AIR PARCEL POST 8. FEDERAL EXP. 2 9. AIR FRT FORWARDER	TRANSPORTATION TERMS (as coded) 1. ACCOUNT OF UNIVERSITY SEE ARTICLE V ON REVERSE 2. ACCOUNT OF SELLER PREPAID 3. SEE BODY OF ORDER	F.O.B. (as coded) 1. DESTINATION 2. SHIPPING POINT 3. SHIP PT. FREIGHT ALLOWED 4.
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ITEM NO.	LAB CATALOG NO. IF APPLICABLE	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE	PROMISED DEL TO CARRIER
		<b>DELIVERY:</b>				<b>NOT LATER THAN</b>
		B-M TO SHIP 1ST ARTICLE, PHASE 1 (OUTER SECTOR) BOARD				02/07/94
		LBL INSPECTION/APPROVAL FOR PRODUCTION, PHASE 1				02/14/94
		B-M TO SHIP ALL REMAINING PHASE 1 BOARDS				03/14/94
		B-M TO SHIP 1ST ARTICLE, PHASE 2 (INNER SECTOR) BOARD				04/11/94
		LBL INSPECTION/APPROVAL FOR PRODUCTION, PHASE 2				04/18/94
		B-M TO SHIP ALL REMAINING PHASE 2 BOARDS				05/16/94

--CONTINUED ON PAGE 3--

The Terms and Conditions On The Reverse Side  
Constitute A Part Of This Order

Authorized by \_\_\_\_\_



REQUESTER <b>BERCOVITZ</b>	BLDG. & ROOM <b>70 257</b>	DELIVER TO: <b>ASSEMBLY SHOP 77</b>	BLDG. ROOM <b>BERCOVITZ</b>	NOTIFY <b>X5833</b>	EXTENSION	HOLD FOR
APPROVED BY <b>FLEISCHMAN</b>	ACCOUNT NO. <b>8052-24-1</b>	AMOUNT OF P.O. <b>103,882.36</b>	STAT. CODE <b>6822200</b>	REQ. NO. <b>4102-60</b>	DEPT. I.D./J.O.	

SUBMIT CORRESPONDENCE/QUESTIONS TO BUYER:		<input type="checkbox"/> 1 CYCLOTRON RD., BERKELEY, CALIF. 94720		<input type="checkbox"/> BOX 5012 LIVERMORE, CALIF. 94550	
BUYER <b>CAMPBELL</b>	CODE <b>161</b>	ORDER NO. <b>3847702</b>	SELLER CODE	DATE <b>12/23/93</b>	ADRIENE
RATED ORDER <b>DO E2</b>	CERT. UNDER D.P.A.S. REG. <b>1</b>	This is a rated order certified for national defense use, and you are required to follow all the provisions of the Defense Priorities and Allocations System regulation (15 CFR Part 350).		TERMS: (AS CODED)	

FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER.

O - 1/2% 10TH & 25TH	3 - 1% 30 DAYS
1 - 1/2% 10 DAYS	F - 2% 10TH & 25TH
A - 1/2% 15 DAYS	4 - 2% 10TH PROX.
B - 1/2% 20 DAYS	G - 2% 15TH
C - 1% 10TH & 25TH	5 - 2% 10 DAYS
2 - 1% 10 DAYS	H - 2% 20 DAYS
9 - 1% 10TH PROX.	6 - 2% 30 DAYS
D - 1% 15TH	7 - NET 30 DAYS
E - 1% 20 DAYS	8 - AS SHOWN

TO  
**BUCKBEE MEARS**

## UNIVERSITY OF CALIFORNIA PURCHASE ORDER

FOR CONTRACT NO. W-7405-ENG. 48  
OR CONTRACT NO. DE-AC03-76SF0098  
WITH THE DEPARTMENT OF ENERGY

FOR RESALE-State Sales Tax should not be charged, as the University holds State Sales Tax Permit SR CH 21-835970 for deliveries to Lawrence Berkeley Laboratory and Permit SR-CHA 21-135323 for deliveries to Lawrence Livermore National Laboratory.

SHIP TO  
**PAGE 3**

MAIL INVOICE IN DUPLICATE TO  
UNIVERSITY OF CALIFORNIA  
LAWRENCE LIVERMORE NATIONAL LABORATORY  
Accounting Office - P.O. BOX 5001  
LIVERMORE, CALIFORNIA 94550  
The Purchase Order Number shown above must appear on your invoice to facilitate payment processing.

SHIP VIA (as coded) ↓ 1. PICKUP 2. PARCEL POST 3. UPS 4. FEDERAL EXP. 1 0.	5. MOTOR FREIGHT 6. AIR FREIGHT 7. AIR PARCEL POST 8. FEDERAL EXP. 2 9. AIR FRT FORWARDER	TRANSPORTATION TERMS (as coded) ↓ 1. ACCOUNT OF UNIVERSITY SEE ARTICLE V ON REVERSE 2. ACCOUNT OF SELLER PREPAID 3. SEE BODY OF ORDER SHIPPING POINT	F.O.B. (as coded) ↓ 1. DESTINATION 2. SHIPPING POINT 3. SHIP PT. FREIGHT ALLOWED 4.
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ITEM NO.	LAB CATALOG NO. IF APPLICABLE	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE	PROMISED DEL TO CARRIER
		<p><b>WARRANTY:</b></p> <p>NOTWITHSTANDING ANY OTHER PROVISIONS OF THIS ORDER, SELLER WARRANTS THAT THE MATERIALS, SUPPLIES OR SERVICES FURNISHED SHALL BE OF THE MOST SUITABLE GRADE AND EXACTLY AS SPECIFIED IN THIS ORDER. SUCH WARRANTY SHALL INCLUDE THE FOLLOWING: PERFORMANCE, WORKMANSHIP, LABOR, MATERIALS, SELLER'S DESIGN OR ENGINEERING CONTRIBUTIONS. IF A DEFECT IS DISCOVERED IN ANY ITEM OF MATERIALS, SUPPLIES OR SERVICES COVERED IN THIS ORDER, SELLER SHALL CORRECT AT ITS EXPENSE SUCH DEFECTS AS ARE REPORTED WITHIN ONE YEAR OF FINAL ACCEPTANCE. UPON EXPIRATION OF THE APPLICABLE WARRANTY PERIOD, ALL SUCH LIABILITY SHALL TERMINATE EXCEPT FOR FRAUD, OR SUCH GROSS MISTAKES AS AMOUNT TO FRAUD, LATENT DEFECTS OR SPECIFIC FAILURE TO COMPLY WITH THE TERMS OF THIS ORDER. THIS WARRANTY IS IN ADDITION TO THE WARRANTIES IN ARTICLE IV.</p> <p style="text-align: center;">--CONTINUED ON PAGE 4--</p>				

The Terms and Conditions On The Reverse Side  
Constitute A Part Of This Order

Authorized by \_\_\_\_\_ UNIVERSITY OF CALIFORNIA



REQUESTER <b>BERCOVITZ</b>	BLDG. & ROOM <b>70 257</b>	DELIVER TO: <b>ASSEMBLY SHOP 77</b>	BLDG. ROOM NOTIFY <b>BERCOVITZ X5833</b>	EXTENSION <b>X5833</b>	HOLD FOR
APPROVED BY <b>FLEISCHMAN</b>	ACCOUNT NO. <b>8052-24-1</b>	AMOUNT OF P.O. <b>108,882.36</b>	STAT. CODE <b>6822200</b>	REQ. NO. <b>4102-60</b>	DEPT. I.D./J.O.

SUBMIT CORRESPONDENCE/QUESTIONS TO BUYER:  1 CYCLOTRON RD., BERKELEY, CALIF. 94720  BOX 5012 LIVERMORE, CALIF. 94550

BUYER <b>CAMPBELL</b>	CODE <b>161</b>	ORDER NO. <b>3847702</b>	SELLER CODE	DATE <b>12/23/93</b>	ADRIENE
RATED ORDER <b>DO E2</b>	CERT. UNDER D.P.A.S. REG. <b>1</b>	This is a rated order certified for national defense use, and you are required to follow all the provisions of the Defense Priorities and Allocations System regulation (15 CFR Part 350).		TERMS: (AS CODED)	

FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER.

O - 1/2 10TH & 25TH	3 - 1% 30 DAYS
1 - 1/2 10 DAYS	F - 2% 10TH & 25TH
A - 1/2 15 DAYS	4 - 2% 10TH PROX.
B - 1/2 20 DAYS	G - 2% 15TH
C - 1% 10TH & 25TH	5 - 2% 10 DAYS
2 - 1% 10 DAYS	H - 2% 20 DAYS
3 - 1% 10TH PROX.	6 - 2% 30 DAYS
D - 1% 15TH	7 - NET 30 DAYS
E - 1% 20 DAYS	8 - AS SHOWN

TO  
**BUCKBEE MEARS**

## UNIVERSITY OF CALIFORNIA PURCHASE ORDER

FOR CONTRACT NO. W-7405-ENG. 48  
OR CONTRACT NO. DE-AC03-76SF00098  
WITH THE DEPARTMENT OF ENERGY

FOR RESALE-State Sales Tax should not be charged, as the University holds State Sales Tax Permit SR CH 21-835970 for deliveries to Lawrence Berkeley Laboratory and Permit SR-CHA 21-135323 for deliveries to Lawrence Livermore National Laboratory.

SHIP TO

PAGE 4

MAIL INVOICE IN DUPLICATE TO  
UNIVERSITY OF CALIFORNIA  
LAWRENCE LIVERMORE NATIONAL LABORATORY  
Accounting Office - P.O. BOX 5001  
LIVERMORE, CALIFORNIA 94550

The Purchase Order Number shown above must appear on your invoice to facilitate payment processing.

SHIP VIA (as coded) ↓ 1. PICKUP 2. PARCEL POST 3. UPS 4. FEDERAL EXP. 1 0.	5. MOTOR FREIGHT 6. AIR FREIGHT 7. AIR PARCEL POST 8. FEDERAL EXP. 2 9. AIR FRT FORWARDER	TRANSPORTATION TERMS (as coded) ↓ 1. ACCOUNT OF UNIVERSITY SEE ARTICLE V ON REVERSE 2. ACCOUNT OF SELLER PREPAID 3. SEE BODY OF ORDER SHIPPING POINT	F.O.B. (as coded) ↓ 1. DESTINATION 2. SHIPPING POINT 3. SHIP PT. FREIGHT ALLOWED 4.
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ITEM NO.	LAB CATALOG NO. IF APPLICABLE	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE	PROMISED DEL TO CARRIER.
IN ADDITION TO THE TERMS AND CONDITIONS ON THE REVERSE OF THIS PURCHASE DOCUMENT, THE PROVISIONS OR ARTICLES LISTED BELOW AND ATTACHED HERETO, ARE MADE A PART OF THIS ORDER AND ARE EQUALLY BINDING.						
1.		ADDENDUM NO. 1 (RL-2360-1 REV 6-89)				
2.		AFFIRMATIVE ACTION FOR SPECIAL DISABLED AND VIETNAM ERA VETERANS (RL-2358 VVE 5/92)				
3.		EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA (RL-2358 VVEREP 5/92)				
4.		UTILIZATION OF SMALL BUSINESS CONCERNS AND SMALL DISADVANTAGED BUSINESS CONCERNS (RL-2358 USBDC 5/92)				
5.		AFFIRMATIVE ACTION FOR HANDICAPPED WORKERS (RL-2358 EH 5/92)				
6.		PREFERENCE FOR PRIVATELY OWNED U.S.-FLAG COMMERCIAL VESSELS (RL-2358 UFCV)				
7.		UTILIZATION OF LABOR SURPLUS AREA CONCERNS (RL-2358 ULSAC)				
8.		UTILIZATION OF WOMEN-OWNED SMALL BUSINESSES (RL-2358 UWB)				
9.		ADDENDUM NO. 2 (RL-2360-2)				
10.		LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (RL-2358 PIFT)				
11.		COST ACCOUNTING STANDARDS-NONDEFENSE (RL-2358 CASND)				
12.		ADMINISTRATION OF COST ACCOUNTING STANDARDS (RL-2358 CAS-ADMRCAS)				
13.		CONSISTENCY OF COST ACCOUNTING PRACTICES - NONDEFENSE CONTRACT (RL-2358 CCAP-ND)				
14.		CLEAN AIR AND WATER (RL-2358 CAW)				

--CONTINUED ON PAGE 5--

The Terms and Conditions On The Reverse Side  
Constitute A Part Of This Order

Authorized by \_\_\_\_\_



REQUESTER <b>BERCOVITZ</b>	BLDG. & ROOM <b>70 257</b>	DELIVER TO: <b>ASSEMBLY SHOP 77</b>	BLDG. ROOM NOTIFY <b>BERCOVITZ X5833</b>	EXTENSION <b>X5833</b>	HOLD FOR
APPROVED BY <b>FLEISCHMAN</b>	ACCOUNT NO. <b>8052-24-1</b>	AMOUNT OF P.O. <b>108,882.33</b>	STAT. CODE <b>6822200</b>	REQ. NO. <b>4102-60</b>	DEPT. I.D./J.O.

SUBMIT CORRESPONDENCE/QUESTIONS TO BUYER:

1 CYCLOTRON RD., BERKELEY, CALIF. 94720

BOX 5012 LIVERMORE, CALIF. 94550

BUYER <b>GAMPBELL</b>	CODE <b>161</b>	ORDER NO. <b>3847702</b>	SELLER CODE	DATE <b>12/23/93</b>	ADRIENE
RATED ORDER <b>DO E2</b>	CERT. UNDER D.P.A.S. REG. <b>1</b>	This is a rated order certified for national defense use, and you are required to follow all the provisions of the Defense Priorities and Allocations System regulation (15 CFR Part 350).		TERMS: (AS CODED)	

FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER.

O - 1/4 10TH & 25TH	3 - 1% 30 DAYS
1 - 1/4 10 DAYS	F - 2% 10TH & 25TH
A - 1/4 15 DAYS	4 - 2% 10TH PROX.
B - 1/4 20 DAYS	G - 2% 15TH
C - 1% 10TH & 25TH	5 - 2% 10 DAYS
2 - 1% 10 DAYS	H - 2% 20 DAYS
9 - 1% 10TH PROX.	6 - 2% 30 DAYS
D - 1% 15TH	7 - NET 30 DAYS
E - 1% 20 DAYS	8 - AS SHOWN

TO  
**BUCKBEE MEARS**

**UNIVERSITY OF CALIFORNIA  
PURCHASE ORDER**

**FOR CONTRACT NO. W-7405-ENG. 48  
OR CONTRACT NO. DE-AC03-76SF00098  
WITH THE DEPARTMENT OF ENERGY**

FOR RESALE-State Sales Tax should not be charged, as the University holds State Sales Tax Permit SR CH 21-835970 for deliveries to Lawrence Berkeley Laboratory and Permit SR-CHA 21-135323 for deliveries to Lawrence Livermore National Laboratory.

SHIP TO

PAGE 5

MAIL INVOICE IN DUPLICATE TO  
UNIVERSITY OF CALIFORNIA  
LAWRENCE LIVERMORE NATIONAL LABORATORY  
Accounting Office - P.O. BOX 5001  
LIVERMORE, CALIFORNIA 94550  
The Purchase Order Number shown above must appear on your invoice to facilitate payment processing.

SHIP VIA (as coded) 1. PICKUP 2. PARCEL POST 3. UPS 4. FEDERAL EXP. 1 0.	5. MOTOR FREIGHT 6. AIR FREIGHT 7. AIR PARCEL POST 8. FEDERAL EXP. 2 9. AIR FRT FORWARDER	TRANSPORTATION TERMS (as coded) 1. ACCOUNT OF UNIVERSITY SEE ARTICLE V ON REVERSE 2. ACCOUNT OF SELLER PREPAID 3. SEE BODY OF ORDER SHIPPING POINT	F.O.B. (as coded) 1. DESTINATION 2. SHIPPING POINT 3. SHIP PT. FREIGHT ALLOWED 4.
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ITEM NO.	LAB CATALOG NO. IF APPLICABLE	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE	PROMISED DEL TO CARRIER
		THE FOLLOWING PATENT, DATA, COPYRIGHT ARTICLES ATTACHED HERETO, ARE HEREBY MADE A PART OF THIS REQUEST FOR QUOTATION.				
		1. REPORTING OF ROYALTIES (RL-2358 ROR)				
		2. PATENT INDEMNITY (RL-2358 PIN)				
		3. PATENT RIGHTS (RL-2358 PRSBNPO)				
		4. ADDITIONAL DATA REQUIREMENTS (RL-2358 ADR)				
		5. RIGHTS IN DATA--GENERAL WITH ALTERNATES, I, II, III, AND V AND DOE SUPPL. SUBPARA. (D)(3) (RL-2358 RIDG)				
		ACCEPTED:				
		BY:				
		TITLE:				
		DATE:				

The Terms and Conditions On The Reverse Side  
Constitute A Part Of This Order

Authorized by \_\_\_\_\_ UNIVERSITY OF CALIFORNIA



J. Marx 70-3307

REQUESTER VARIOUS	BLDG. & ROOM VARIOUS	DELIVER TO: PICK-UP	BLDG. ROOM	NOTIFY LAWTHER	EXTENSION 4395	HOLD FOR
APPROVED BY VARIOUS	ACCOUNT NO. 9999-99-1	AMOUNT OF P.O. 9,950.00		STAT. CODE 3413200	REQ. NO. VARIOUS	DEPT. I.D./J.O.

SUBMIT CORRESPONDENCE/QUESTIONS TO BUYER:  1 CYCLOTRON RD., BERKELEY, CALIF. 94720  BOX 5012 LIVERMORE, CALIF. 94550

BUYER LAWTHER	CODE 19	ORDER NO. 3575933	SELLER CODE	DATE 31/13/84	ELM	FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER
RATED ORDER DU 03	CERT. UNDER D.P.A.S. REG. 1	This is a rated order certified for national defense use, and you are required to follow all the provisions of the Defense Priorities and Allocations System regulation (15 CFR Part 350).			TERMS: (AS CODED)	O - 1/2 10TH & 25TH 1 - 1/2 10 DAYS A - 1/2 15 DAYS B - 1/2 20 DAYS C - 1% 10TH & 25TH 2 - 1% 10 DAYS 9 - 1% 10TH PROX. D - 1% 15TH E - 1% 20 DAYS 3 - 1% 30 DAYS F - 2% 10TH & 25TH 4 - 2% 10TH PROX. G - 2% 15TH 5 - 2% 10 DAYS H - 2% 20 DAYS 6 - 2% 30 DAYS 7 - NET 30 DAYS 8 - AS SHOWN

**UNIVERSITY OF CALIFORNIA**

FOR CONTRACT NO. W-7405-ENG. 48  
OR CONTRACT NO. DE-AC03-76SF00098  
WITH THE DEPARTMENT OF ENERGY  
PURCHASE ORDER COPY 3

To: Requisitioning Department  
USE - INFORMATION COPY  
DISPOSITION - DESTROY

DO NOT CONTACT SELLER  
FOR INFORMATION CALL PURCHASING DEPT.  
BERKELEY EXT. 4571, OR LIVERMORE EXT. 2-9548

TO  
FROM  
3075 OAKMEADE VILLAGE DR  
SANTA CLARA CA 95051  
ATTN: MARK THOMPSON

SHIP TO  
AS REQUESTED

SHIP VIA (as coded) 1. PICKUP 2. PARCEL POST 3. UPS 4. FEDERAL EXP. 1 0. AS REQUESTED	5. MOTOR FREIGHT 6. AIR FREIGHT 7. AIR PARCEL POST 8. FEDERAL EXP. 2 9. AIR FRT FORWARDER	TRANSPORTATION TERMS (as coded) 1. ACCOUNT OF UNIVERSITY SEE ARTICLE V ON REVERSE 2. ACCOUNT OF SELLER PREPAID 3. SEE BODY OF ORDER SHIPPING POINT SANTA CLARA, CA	F.O.B. (as coded) 1. DESTINATION 2. SHIPPING POINT 3. SHIP PT. FREIGHT ALLOWED 4.
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ITEM NO.	LAB CATALOG NO. IF APPLICABLE	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE	PROMISED DEL TO CARRIER
		BLANKET ORDER				
		SELLER TO PROVIDE SERVICES AS LISTED BELOW AS REQUESTED BY THE LBL COORDINATOR DURING THE PERIOD JANUARY 1, 1991 THROUGH DECEMBER 31, 1994.				
		THE TOTAL ALLOWABLE EXPENDITURES UNDER THIS ORDER.....			\$ 9,950.00	
		UNIVERSITY MAY FROM TIME TO TIME UNDER THE PROVISIONS OF THIS ORDER REVISE THE TOTAL ALLOWABLE EXPENDITURES.				
		THIS ORDER SUPERSEDES BLANKET ORDER 3537000.				
		SERVICES AND RATES				
		SPECIFICATIONS WILL BE SUPPLIED VERBALLY OR IN WRITING BY THE LBL COORDINATOR FOR THE FOLLOWING SERVICES:				
		SURFACE MOUNT TECHNOLOGY (SMT) ASSEMBLY.				
		WIREBONDING				
		SOLDER SCREENING				
		ASSEMBLY ON HYBRIDS				
		TESTS				

--CONTINUED ON PAGE 2--

The Terms and Conditions On The Reverse Side  
Constitute A Part Of This Order

Authorized by \_\_\_\_\_

UNIVERSITY OF CALIFORNIA



REQUESTER VARIOUS	BLDG. & ROOM VARIOUS	DELIVER TO: PICK-UP	BLDG. ROOM LANTHER	EXTENSION 4598	HOLD FOR
APPROVED BY VARIOUS	ACCOUNT NO. 9990-99-1	AMOUNT OF P.O. 2,257.00	STAT. CODE 3413200	REQ. NO. VARIOUS	DEPT. I.D./J.O.

SUBMIT CORRESPONDENCE/QUESTIONS TO BUYER:		<input type="checkbox"/> 1 CYCLOTRON RD., BERKELEY, CALIF. 94720		<input type="checkbox"/> BOX 5012 LIVERMORE, CALIF. 94550	
BUYER LANTHER	CODE 196	ORDER NO. 3575900	SELLER CODE	DATE 31/03/94	RLM
RATED ORDER NO E2	CERT. UNDER D.P.A.S. REG. 1	This is a rated order certified for national defense use, and you are required to follow all the provisions of the Defense Priorities and Allocations System regulation (15 CFR Part 350).		TERMS: (AS CODED)	

FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER.

O - 1/2 10TH & 25TH	3 - 1% 30 DAYS
1 - 1/2 10 DAYS	F - 2% 10TH & 25TH
A - 1/2 15 DAYS	4 - 2% 10TH PROX.
B - 1/2 20 DAYS	G - 2% 15TH
C - 1/2 10TH & 25TH	5 - 2% 10 DAYS
2 - 1% 10 DAYS	H - 2% 20 DAYS
3 - 1% 10TH PROX.	6 - 2% 30 DAYS
D - 1% 15TH	7 - NET 30 DAYS
E - 1% 20 DAYS	8 - AS SHOWN

TO  
PROMEX

**UNIVERSITY OF CALIFORNIA**

FOR CONTRACT NO. W-7405-ENG. 48  
OR CONTRACT NO. DE-AC03-76SF00098  
WITH THE DEPARTMENT OF ENERGY  
PURCHASE ORDER COPY 3

To: Requisitioning Department  
USE - INFORMATION COPY  
DISPOSITION - DESTROY

DO NOT CONTACT SELLER  
FOR INFORMATION CALL PURCHASING DEPT.  
BERKELEY EXT. 4571, OR LIVERMORE EXT. 2-9548

SHIP TO

PAGE 2

SHIP VIA (as coded) 1. PICKUP 2. PARCEL POST 3. UPS 4. FEDERAL EXP. 1 0.	5. MOTOR FREIGHT 6. AIR FREIGHT 7. AIR PARCEL POST 8. FEDERAL EXP. 2 9. AIR FRT FORWARDER	TRANSPORTATION TERMS (as coded) 1. ACCOUNT OF UNIVERSITY SEE ARTICLE V ON REVERSE 2. ACCOUNT OF SELLER PREPAID 3. SEE BODY OF ORDER	F.O.B. (as coded) 1. DESTINATION 2. SHIPPING POINT 3. SHIP PT. FREIGHT ALLOWED 4.
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ITEM NO.	LAB CATALOG NO. IF APPLICABLE	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE	PROMISED DEL TO CARRIER
		MODIFICATIONS OR VARIATIONS TO LBL SPECIFICATIONS MAY OCCUR WITH LBL'S PRIOR APPROVAL.  LABOR: \$50.00/HOUR, \$200.00 MINIMUM PARTS: LBL SUPPLIED AT TIME OF REQUEST FOR SERVICE.  LBL COORDINATORS  THE FOLLOWING USERS ARE AUTHORIZED TO REQUEST SERVICES AND INDICATED LEADERS ARE AUTHORIZED TO CERTIFY INVOICES UNDER THIS ORDER. USERS ARE TO GIVE LBL ACCOUNT NUMBER FOR THEIR SPECIFIC JOB. SELLER WILL NOTE LBL ACCOUNT ON INVOICES PER SPECIFIC JOB.				
		USER	LBL ACCOUNT		GROUP EXPENDITURES	
1.	BOB MINOR, LEADER MIKE LEVI	7974-21 7974-21			\$2,500.00	
2.	JIM HUNTER, LEADER JAY MARK LBS BRAUN TOM WOGGLEY HANS-GEORG RITTER	3052-KX 3052-KX 3052-KX 3052-KX 3052-KX			\$3,750.00	
3.	ROBERT BLY, LEADER CARL HABER	7919-33 7919-33			\$3,700.00	

--CONTINUED ON PAGE 3--

The Terms and Conditions On The Reverse Side  
Constitute A Part Of This Order

Authorized by \_\_\_\_\_ UNIVERSITY OF CALIFORNIA



REQUESTER VARIOUS	BLDG. & ROOM VARIOUS	DELIVER TO: PICK-UP	BLDG. ROOM	NOTIFY LAWTHER	EXTENSION 4596	HOLD FOR
APPROVED BY VARIOUS	ACCOUNT NO. 9999-99-1	AMOUNT OF P.O. 9,954.80		STAT. CODE 3418200	REQ. NO. VARIOUS	DEPT. I.D./J.O.

SUBMIT CORRESPONDENCE/QUESTIONS TO BUYER:		<input type="checkbox"/> 1 CYCLOTRON RD., BERKELEY, CALIF. 94720		<input type="checkbox"/> BOX 5012 LIVERMORE, CALIF. 94550	
BUYER LAWTHER	CODE 190	ORDER NO. 3575907	SELLER CODE	DATE 11/13/94	BLM
RATED ORDER DO 82	CERT. UNDER D.P.A.S. REG. 1	This is a rated order certified for national defense use, and you are required to follow all the provisions of the Defense Priorities and Allocations System regulation (15 CFR Part 350).		TERMS: (AS CODED)	

FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER.

O - 1/2 10TH & 25TH	3 - 1% 30 DAYS
1 - 1/2 10 DAYS	F - 2% 10TH & 25TH
A - 1/2 15 DAYS	4 - 2% 10TH PROX.
B - 1/2 20 DAYS	G - 2% 15TH
C - 1% 10TH & 25TH	5 - 2% 10 DAYS
2 - 1% 10 DAYS	H - 2% 20 DAYS
9 - 1% 10TH PROX.	6 - 2% 30 DAYS
D - 1% 15TH	7 - NET 30 DAYS
E - 1% 20 DAYS	8 - AS SHOWN

**UNIVERSITY OF CALIFORNIA**  
 FOR CONTRACT NO. W-7405-ENG. 48  
 OR CONTRACT NO. DE-AC03-76SF00098  
 WITH THE DEPARTMENT OF ENERGY  
 PURCHASE ORDER COPY 3

To: Requisitioning Department  
 USE - INFORMATION COPY  
 DISPOSITION - DESTROY

DO NOT CONTACT SELLER  
 FOR INFORMATION CALL PURCHASING DEPT.  
 BERKELEY EXT. 4571, OR LIVERMORE EXT. 2-9548

TO  
 PROMEX

SHIP TO  
 PAGE 3

SHIP VIA (as coded) <input type="checkbox"/> 1. PICKUP <input type="checkbox"/> 2. PARCEL POST <input type="checkbox"/> 3. UPS <input type="checkbox"/> 4. FEDERAL EXP. 1 <input type="checkbox"/> 0.	5. MOTOR FREIGHT <input type="checkbox"/> 6. AIR FREIGHT <input type="checkbox"/> 7. AIR PARCEL POST <input type="checkbox"/> 8. FEDERAL EXP. 2 <input type="checkbox"/> 9. AIR FRT FORWARDER	TRANSPORTATION TERMS (as coded) <input type="checkbox"/> 1. ACCOUNT OF UNIVERSITY SEE ARTICLE V ON REVERSE <input type="checkbox"/> 2. ACCOUNT OF SELLER PREPAID <input type="checkbox"/> 3. SEE BODY OF ORDER	F.O.B. (as coded) <input type="checkbox"/> 1. DESTINATION <input type="checkbox"/> 2. SHIPPING POINT <input type="checkbox"/> 3. SHIP PT. FREIGHT ALLOWED <input type="checkbox"/> 4.
--	---	---	---

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE	PROMISED DEL TO CARRIER
		<p>INVOICE</p> <p>SELLER SHALL SUBMIT INVOICES IN DUPLICATE, IN APPEARANCE FOR SERVICES PERFORMED TO UNIVERSITY OF CALIFORNIA, LAWRENCE BERKELEY LABORATORY, ACCOUNTING OFFICE, P.O. BOX 820, BERKELEY, CA 94701.</p> <p>SELLER IS TO STATE UBL GROUP ACCOUNT NUMBER ON INVOICE.</p> <p>IN ADDITION TO THE TERMS AND CONDITIONS ON THE REVERSE OF THIS PURCHASE DOCUMENT, THE PROVISIONS OR ARTICLES LISTED BELOW AND ATTACHED HERETO, ARE MADE A PART OF THIS ORDER AND ARE EQUALLY BINDING.</p> <p>1. ADDENDUM NO. 1 (RL-2354-1)            2. AFFIRMATIVE ACTION FOR HANDICAPPED WORKERS (RL-2354-2H)            3. ADDENDUM NO. 2 (RL-2354-2)</p> <p>THE FOLLOWING PATENT, DATA, COPYRIGHT ARTICLES ATTACHED HERETO, ARE HEREBY MADE A PART OF THIS ORDER.</p> <p>1. REPORTING OF ROYALTIES (RL-2354-ROR)            2. PATENT INDEMNITY (RL-2354-PII)            3. RIGHTS IN DATA--GENERAL WITH ALTERNATES, I, II, III, AND V AND DOE SUPPL. SU-PARA. (D)(S) (RL-2354-RIDG)            4. SUBCONTRACTOR LICENSING (RL-2354-SLLRRC)</p>				

The Terms and Conditions On The Reverse Side  
 Constitute A Part Of This Order

Authorized by *Lawther*  
 UNIVERSITY OF CALIFORNIA



## BLANKET ORDER INSTRUCTIONS

These instructions are issued to requesters and users of blanket orders to inform them of their responsibility to administer blanket orders.

Blanket orders provide continued service or delivery of varying materials or supplies at fixed rates or prices from a specific supplier over a year or longer terms.

As a requester of the attached Blanket Order, your first responsibility is to read the order and to ensure that all users are provided a copy of these instructions and the blanket order.

Only those listed as authorized users are allowed to request services or supplies under this order.

Only those supplies and/or services listed in the order may be requested.

Any other usage will be considered an unauthorized procurement.

It is the requester's/user's responsibility to monitor the following:

- Total expenditures are not exceeded.
- Shipping address and users name is correct at time of release under the blanket order.
- Verify the packing list to ensure it is complete and accurate in accordance with order.
- Errors in shipment are corrected.
- Invoicing is accurate and in compliance with order pricing.
- Renewal of Blanket Order is prior to expiration date.
- No releases are requested against expired or over expended blanket orders.

If you have questions concerning the proper use of this Blanket Order, please contact the Buyer.



REQUESTER <b>L. BRAUN / S. CHOW</b>	BLDG. & ROOM <b>70 - 313</b>	DELIVER TO: <b>S. CHOW</b>	BLDG. ROOM <b>25A - 119</b>	NOTIFY <b>STEVEN CHOW</b>	EXTENSION <b>5948</b>	HOLD FOR/J.O.
APPROVED BY <i>[Signature]</i>	ACCOUNT NO. <b>8052-24</b>	AMOUNT OF P.O.	STAT. CODE	REQ. NO. <b>135690</b>		

ORIZATION	\$10,000 <input type="checkbox"/>	\$50,000 <input type="checkbox"/>	OVER <input type="checkbox"/>	
BUYER	CODE	ORDER NO.	REQ. DATE <b>4/1/94</b>	DATE NEEDED <b>4/26/94</b>
COST NOT TO EXCEED <b>\$5205.00</b>	TERMS:			

**UNIVERSITY OF CALIFORNIA**  
**PURCHASE REQUISITION**  
 FOR CONTRACT NO. DE-AC03-76SF00098  
 WITH THE  
 DEPARTMENT OF ENERGY

**SHADED AREA FOR PURCHASING USE ONLY.**

SELLER \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Placed \_\_\_\_\_ Date \_\_\_\_\_ Contact \_\_\_\_\_

HAZARD REVIEW - Enter one of the letters in the box below.

<input checked="" type="checkbox"/> <b>N.</b>	C. Chemical	L. Laser	S. Service Contracts
	R. Radiological	M. Microwave	O. Other Hazards
	B. Biological	X. X-Ray	N. No Hazards

RETAIN LAST COPY SEND ALL OTHER COPIES TO PURCHASING

DATE MATERIAL RECEIVED	PACKING LIST NO.
DATE OF INSPECTION	RECEIVAL & INSPECTION CERTIFIED BY:
CARRIER	DELIVERY RECEIPT NUMBER

SHIP BY	SHIP FROM	F.O.B.	PROMISED DELIVERY TO CARRIER
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ITEM NO.	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
	<b>FABRICATION (MULTILAYER)</b>				
	<b>PRINTED WIRING BOARD TO BE FABRICATED IN STRICT ACCORDANCE WITH UCLBL ENGINEERING INSTRUCTION NUMBER 135690</b>				
<b>1.</b>	<b>ANODE WIRE MOUNT (AWMB) (24 BOARDS) A000890U1 REV A</b>	<b>4</b>			
	<b>ATTN.: KEN BEARD</b>	<b>PANELS</b>			
	<b>ETCH TEK INC.</b>				
	<b>2455 BATES AVE.</b>				
	<b>CONCORD, CA 94520</b>				
	<b>(510) 671-9800</b>				
	<b>FAX (510) 671-0151</b>				

MARKS \_\_\_\_\_

Authorized By \_\_\_\_\_ PURCHASING



REQUESTER <b>L. BRAUN / S. CHOW</b>	BLDG. & ROOM <b>70 - 313</b>	DELIVER TO: <b>S. CHOW</b>	BLDG. ROOM <b>25A - 119</b>	NOTIFY <b>STEVEN CHOW</b>	EXTENSION <b>5948</b>	HOLD FOR/J.O.
APPROVED BY <i>[Signature]</i>	ACCOUNT NO. <b>8052-24</b>	AMOUNT OF P.O.	STAT. CODE	REQ. NO. <b>135680</b>		

BUYER	CODE	ORDER NO.	REQ. DATE <b>4/1/94</b>	DATE NEEDED <b>4/26/94</b>
COST NOT TO EXCEED <b>\$4,205.00</b>			TERMS:	

**UNIVERSITY OF CALIFORNIA**  
PURCHASE REQUISITION  
FOR CONTRACT NO. DE-AC03-76SF00098  
WITH THE  
DEPARTMENT OF ENERGY

**SHADED AREA FOR PURCHASING USE ONLY.**

SELLER \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Placed \_\_\_\_\_ Date \_\_\_\_\_ Contact \_\_\_\_\_

HAZARD REVIEW - Enter one of the letters in the box below.

<input checked="" type="checkbox"/> N.	C. Chemical	L. Laser	S. Service Contracts
	R. Radiological	M. Microwave	O. Other Hazards
	B. Biological	X. X-Ray	N. No Hazards

RETAIN LAST COPY SEND ALL OTHER COPIES TO PURCHASING

DATE MATERIAL RECEIVED:	PACKING LIST NO.
DATE OF INSPECTION	RECEIVAL & INSPECTION CERTIFIED BY:
CARRIER	DELIVERY RECEIPT NUMBER

SHIP BY	SHIP FROM	F.O.B.	PROMISED DELIVERY TO CARRIER
---------	-----------	--------	------------------------------

ITEM NO.	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
	<b>FABRICATION (MULTILAYER)</b>				
	<b>PRINTED WIRING BOARD TO BE FABRICATED IN STRICT ACCORDANCE WITH UCLBL ENGINEERING INSTRUCTION NUMBER 135680</b>				
<b>1.</b>	<b>GGB A000873U1 REV A (32 BOARDS) (GRATED GRID BOARD)</b> TOTAL OF 30 EACH INDIVIDUAL BOARD, WILL BE REQUIRED. ATTN.: KEN BEARD	<b>2</b>			
	<b>ETCH TEK INC.</b>				
	<b>2 4 5 5 BATES AVE.</b>				
	<b>CONCORD, CA 9 4 5 2 0</b>				
	<b>(5 1 0) 6 7 1 - 9 8 0 0</b>				
	<b>FAX (5 1 0) 6 7 1 - 0 1 5 1</b>				

MARKS \_\_\_\_\_

Authorized By \_\_\_\_\_ PURCHASING



ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date: 4/29/94 Account No. 8052-24 Serial No. 033705  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: J. BOEHM 6506  
 Refer Questions To: BOEHM/BERCOVITZ  
 Job Requested By: (Client) JOHN BERCOVITZ 5833  
 Design Check By: (Engineer Responsible)

WORK DISTRIBUTION							
CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	DWGS.
MECH. ENG.				MECH. SHOP OFF.		2	2
MECH. TECH. OFF.				ASS'Y SHOP			
SHOP 25				MACH. SHOP			
SHOP 71				PAINT SHOP			
SHOP				SHEET METAL			
SHOP				WELDING SHOP			

Production Check By: R. Wells 4/29/94  
 Authorized By: J. BOEHM APR 28  
 Job Description: STAR-TPC  
 Residual Risks Accepted: 1779  
 By:

OSECT  
 WIRE MOUNT XTR.

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	MACHINE SHOP	77	*	see below	
ASSEMBLY					

ELECT. ENG.	C&M OFFICE
COORDINATING	CARPENTERS
DRAFTING	ELECTRICIANS
ELECT. FAB.	LABORERS
ELECT. INSTALL	MAINT. TECHS
ELECT. MAINT.	PAINTERS
ELECT. Q.A.	PLUMBERS
OPER. CHECK	
TECH. SUPP.	
ELEC-MECH. 80	

REFERENCE DISTRIBUTION		PRINTS			
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.	
R. WELLS	70A	3307	1	—	
J. BERCOVITZ	"	"	1	—	
J. BOEHM	"	"	1	—	

TOTAL HRS	16	AT 24 HR.
LABOR	\$	1,074
MATERIAL	\$	100
TOTAL	\$	1,174
SAFETY SHOPS		
SAFETY/ENVIRONMENTAL		
ANALYSIS		
BY:	DATE:	
PRELIM.		
FINAL		

FABRICATION:  
 LBL SHOPS  
 OUTSIDE SHOPS  
 Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000  
 PRINT DIVISION  
 MECH ENGR DEPT  
 LBL RECEIVED BY  
 29 8 29 AM '94

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

JOB ORDER  
 DWGS IN FILE

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME	DESCRIPTION	INSTRUCTIONS
1		24A3843	4 pieces	GATED GRID	WIMOUNT EXTR.	29.0 ± .1 LONG, SHOP TO OBTAIN MAT'L USE EITHER ALU 6063-T5 or 6061-T6
2		24A3853	4 pieces	SHIELD GRID	WIMOUNT EXTR.	29.0 ± .1 LONG SHOP TO OBTAIN MAT'L USE EITHER ALU 6063-T5 OR 6061-T6
* FOLLOW-UP J.O. WILL BE FOR MACHINING MOUNTING HOLES & SURFACES						



ISSUED TO: C&M Shops  Elec. Shops  Elec. Eng.  Env. Hlth/Safety  Date 4/28/94 Account No. 8052-24 Serial No. 033707  
 PR. Mech. Shops  Mech. Tech.  Mech. Eng.  Inst. Sci./Eng.

Ordered By: Ext. J. BOEHM 6506 Refer Questions To: Ext. BERCOVITZ/BOEHM  
 Job Requested By: (Client) Ext. J. BERCOVITZ 5833  
 Design Check By: (Engineer Responsible) Ext. \_\_\_\_\_

Production Check By: Date J. Wirth 4-29-94 Authorized By: Date [Signature] 4/29/94  
 Job Description: STAR Residual Risks Accepted  
 By: \_\_\_\_\_

OUTER SECTOR  
WIRE MOUNTS, 12ST ARTICLE

DELIVER TO:	NAME	Bldg.	Rm.	Ext.	DUE DATE
PARTS	J. WIRTH	77	141	5905	5/13/94
ASSEMBLY					

REFERENCE DISTRIBUTION		PRINTS		
SEND COPIES TO:	Bldg.	Rm.	J.O.	DWGS.
R. WELLS	70A	3307	1	—
J. BOEHM	"	"	1	3
J. BERCOVITZ	"	"	1	1
J. WIRTH	77	135	1	1

WORK DISTRIBUTION							
CRAFT	EST. HRS.	PRINTS J.O.	DWGS.	CRAFT	EST. HRS.	PRINTS J.O.	DWGS.
MECH. ENG.				MECH. SHOP OFF.	1	2	2
MECH. TECH. OFF.				ASS'Y SHOP			
SHOP 25				MACH. SHOP	24		
SHOP 71				PAINT SHOP			
SHOP				SHEET METAL			
SHOP				WELDING SHOP			
				CNC	8		
ELECT. ENG.				C&M OFFICE			
COORDINATING				CARPENTERS			
DRAFTING				ELECTRICIANS			
ELECT. FAB.				LABORERS			
ELECT. INSTALL				MAINT. TECHS			
ELECT. MAINT.				PAINTERS			
ELECT. Q.A.				PLUMBERS			
OPER. CHECK							
TECH. SUPP.							
ELEC-MECH. 80							
SAFETY SHOPS				TOTAL HRS 33 AT 69 HR.			
SAFETY/ENVIRONMENTAL				LABOR \$ 2,112.7			
ANALYSIS				MATERIAL \$			
BY: _____ DATE: _____				TOTAL \$ 2,112.7			
PRELIM. _____				FABRICATION:			
FINAL _____				<input checked="" type="checkbox"/> LBL SHOPS <input type="checkbox"/> OUTSIDE SHOPS Attach completed MAKE/BUY form when Mech. Shops labor exceeds \$1000			

SPACE RESERVED FOR DEPARTMENTS RECEIVING COPIES

JOB ORDER

ITEM NO.	SHOP USE	DRAWING OR PART NUMBER	QUANTITY	NAME	DESCRIPTION	INSTRUCTIONS
1		24A3884	2		SHIELD WIRE MOUNT, LEFT	
2		24A3894	2		SHIELD WIRE MOUNT, RIGHT	
3		24A3904	2		GATED GRID W/ MOUNT, LEFT	
4		24A3914	2		GATED GRID W/ MOUNT, RIGHT	
MAKE FROM EXTRUSION BLANKS PRODUCED FROM J.O. # 033705						
PRINT DIVISION MECH ENGR DEPT LBL. SERKLEY APR 29 2 13 PM '94						



ATTN: JOHN MEHREN FAX 6668

PRINT NUMBERS

UNIVERSITY OF CALIFORNIA  
LAWRENCE BERKELEY LAB

SERIAL NUMBER

REQUEST FOR PROCUREMENT

REQUESTER R. WELLS M.S. 70A/3307 DATE REQUESTED 5/13/94

DELIVER TO ↑ DATE NEEDED 5/16/94

BLDG 70 ROOM 314 PHONE NUMBER 7925

ACCOUNT NO. 8052-24 AUTHORIZED SIGNATURE Russell Wells

QUANTITY	DESCRIPTION	APPROX PRICE
----------	-------------	--------------

2

MAKE QUANTITATIVE MEASUREMENT  
OF FRACTION OF BROMINE (BY WT.)  
IN FIBERGLASS SAMPLES.

\$ 200<sup>00</sup>

PICK-UP SAMPLES FROM  
JOHN BERGOVITZ 70/257A

VENDOR CAL - COAST ANALYTICAL  
 ADDRESS \_\_\_\_\_  
 CITY EMMSBYVILLE STATE CA  
 PHONE NUMBER 652-2979  
 CONTACT Robert Hassner

SHIP CODE \_\_\_\_\_  
 TOTAL COST \_\_\_\_\_  
 P.O. NO. \_\_\_\_\_  
 TERMS \_\_\_\_\_  
 PICK UP DATE \_\_\_\_\_  
 TIME AFTER \_\_\_\_\_  
 CLOSED DURING LUNCH YES  NO   
 VEHICLE \_\_\_\_\_

REMARKS REPORT TO BE FAXED TO 486-7105  
ADD W/HARD COPY MAILED TO 70A/3307

REQUISITION  
NUMBER



REQUESTED BY <b>R. WELLS</b>	BLDG. 70	ROOM 314	DELIVERY TO BLDG. 77 Assm STOP	RM.	NOTIFY JON WIRTH 5901	EXT. 5901	HOLD FOR ACCT./J.O.
APPROVED BY <i>Russell Wells</i>	ACCOUNT NO. 8052-24	AMOUNT OF P.O. 2,743.04	SELLER CODE	STAT. CODE 1823200	SELLER'S NAME		

AUTHORIZATION \$10,000 <input type="checkbox"/> \$50,000 <input type="checkbox"/> OVER <input type="checkbox"/>	ORDER NO. <b>48866A2</b>	REQ. DATE 5/17/94
CODE 161 <i>a. Campbell</i>	REQ. NO. 410265	DATE NEEDED 6/6/94 <b>(RUSH)</b>
COST NOT TO EXCEED \$2,800. <sup>00</sup>	TERMS: FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER. 7	

**UNIVERSITY OF CALIFORNIA**  
**PURCHASE REQUISITION**  
 FOR CONTRACT NO. DE-AC03-76SF00098  
 WITH THE  
**DEPARTMENT OF ENERGY**  
 SEND WITH YELLOW, GREEN & PINK COPY  
 TO PURCHASING

**SHADED AREA FOR PURCHASING USE ONLY.**

SELLER: **ALLIED SIGNAL**  
 Street: **665 LYBRAND ST**  
 City: **POSTVILLE, IOWA 52162**  
 State: **Iowa**  
 Placed: **5-8** Date **PATRICIA NIEL / MIKE FIXMER** Contact

HAZARD REVIEW - At least one box must be checked:  
 Chemical     Laser     Service Contracts  
 Radiological     Microwave     Other Hazards  
 Biological     X-Ray     No Hazards

DATE MATERIAL RECEIVED:	PACKING LIST NO.
DATE OF INSPECTION	RECEIVAL & INSPECTION CERTIFIED BY:
CARRIER	DELIVERY RECEIPT NUMBER
COLUMNS BELOW FOR PURCHASING, RECEIVING AND ACCOUNTING	
REQUISITIONERS MAY USE PRICE COLUMNS IF TOTAL ORDER ESTIMATE EXCEEDS \$1000.00	
F.O.B.	PROMISED DELIVERY TO CARRIER
	QUANTITY ACCEPTED AS ORDERED

RECEIVED  
AMR PRICE BERKELEY LAB  
PURCHASING DEPT  
94 MAY 17 AM 10:53

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
1		G10CR COPPER CLAD 1oz / 1oz, 36" x 48" 0.062 ± .005"	35 EA	47.70	1,669.50	
2		G10CR COPPER CLAD 1oz / 1oz, 36" x 48" 0.031 ± .004"	12	24.89	298.68	
3		G10CR UNCLAD 36" x 48" 0.062 ± .0075"	4	48.14	192.56	
4		G10CR UNCLAD 36" x 48" 0.125 ± .012"	6	97.05	582.30	
ITEMS 1-4 MUST BE NON-FR (NO BROMINE) [SAME RUN AS B-M ORDER]					2,743.04	

REMARKS: AVAILABLE FROM ALLIED SIGNAL  
 CONTACT PAT NIEL 319-864-4246 PHONE  
 OR SCOTT PETERSON 612-897-6556 FAX

Authorized By: *a. Campbell*  
 PURCHASING



REQUESTED BY <b>R. WELLS</b>	BLDG. <b>70</b>	ROOM <b>314</b>	DELIVERY TO BLDG. <b>77 ASSM SHOP</b>	RM.	NOTIFY <b>JOA WIRTH</b>	EXT. <b>5901</b>	HOLD FOR ACCT./J.O.
APPROVED BY <i>Russell Wells</i>	ACCOUNT NO. <b>8052-24</b>	AMOUNT OF P.O.	SELLER CODE	STAT. CODE	SELLER'S NAME		

\$10,000   
  \$50,000   
  OVER   
  SB   
  BB

**UNIVERSITY OF CALIFORNIA**

**PURCHASE REQUISITION**

**FOR CONTRACT NO. DE-AC03-76SF00098  
WITH THE  
DEPARTMENT OF ENERGY**

**REQUISITIONER-RETAIN AS FILE COPY**

BUYER CODE	ORDER NO.	REQ. DATE <b>5/17/94</b>
		DATE NEEDED <b>6/6/94</b>
COST NOT TO EXCEED <b>\$2800-</b>	REFER BIDS TO REQ. NO. <b>410265</b>	TERMS: FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER.

**SHADED AREA FOR PURCHASING USE ONLY.**

SELLER \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Placed \_\_\_\_\_ Date \_\_\_\_\_ Contact \_\_\_\_\_

DATE MATERIAL RECEIVED:	PACKING LIST NO.
DATE OF INSPECTION	RECEIVAL & INSPECTION CERTIFIED BY:
CARRIER	DELIVERY RECEIPT NUMBER

HAZARD REVIEW - At least one box must be checked:

<input type="checkbox"/> Chemical	<input type="checkbox"/> Laser	<input type="checkbox"/> Service Contracts
<input type="checkbox"/> Radiological	<input type="checkbox"/> Microwave	<input type="checkbox"/> Other Hazards
<input type="checkbox"/> Biological	<input type="checkbox"/> X-Ray	<input type="checkbox"/> No Hazards

COLUMNS BELOW FOR PURCHASING, RECEIVING AND ACCOUNTING.

REQUISITIONERS MAY USE PRICE COLUMNS IF TOTAL ORDER ESTIMATE EXCEEDS \$1000.00

SHIP BY	SHIP FROM	F.O.B.	PROMISED DELIVERY TO CARRIER
			QUANTITY ACCEPTED AS ORDERED

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
		G10CR COPPER CLAD 1oz / 1oz. 36" x 48" 0.062 ± .005"	35			
2		G10CR COPPER CLAD 1oz / 1oz. 36" x 48" 0.031 ± .004"	12			
3		G10CR UNCLAD 36" x 48" 0.062 ± .0075"	4			
4		G10CR UNCLAD 36" x 48" 0.125 ± .012"	6			
ITEMS 1-4 MUST BE NON FR (NO BROMINE)						

*Washed over to Campbell*

*Per John @ Allied  
(319) 864-4246 x242  
SHIP DATE  
6/10*

REMARKS: AVAILABLE FROM ALLIED SIGNAL  
CONTACT PAT NICH 319-864-4246  
OR SCOT PETERSON 312-897-6556



REQUESTED BY: **R. WELLS** BLDG: **70** ROOM: **314** DELIVERY TO BLDG: **77 ASSM SHOP** RM: **77** NOTIFY: **ION WIRTH** EXT: **5901** HOLD FOR ACCT./J.O.

APPROVED BY: *Russell Wells* ACCOUNT NO.: **8052-24** AMOUNT OF P.O.: **2,743.84** SELLER CODE: **18232** STAT. CODE: **00** SELLER'S NAME:

ORIGINATION: \$10,000  \$50,000  OVER  SB  BB

BUYER CODE: **161** ORDER NO.: **43866A2** REQ. DATE: **5/17/94** DATE NEEDED: **6/6/94** (RUSH)

COST NOT TO EXCEED: **\$2,800.<sup>00</sup>** REFER BIDS TO: **410265** TERMS: FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER.

**UNIVERSITY OF CALIFORNIA**  
**PURCHASE REQUISITION**  
**FOR CONTRACT NO. DE-AC03-76SF00098**  
**WITH THE**  
**DEPARTMENT OF ENERGY**  
**PURCHASING FILE COPY**

**SHADED AREA FOR PURCHASING USE ONLY.**

SELLER: **ALLIED SIGNAL**  
 Street: **665 LYBANO ST**  
 City: **POSTVILLE, IOWA 52162** State: **IOWA**  
 Placed: **5-8** Date: **5-8** Contact: **PATRICIA NIEL / MIKE EXMER**

**HAZARD REVIEW - At least one box must be checked:**

<input type="checkbox"/> Chemical	<input type="checkbox"/> Laser	<input type="checkbox"/> Service Contracts
<input type="checkbox"/> Radiological	<input type="checkbox"/> Microwave	<input type="checkbox"/> Other Hazards
<input type="checkbox"/> Biological	<input type="checkbox"/> X-Ray	<input checked="" type="checkbox"/> No Hazards

DATE MATERIAL RECEIVED: \_\_\_\_\_ PACKING LIST NO. \_\_\_\_\_

DATE OF INSPECTION: \_\_\_\_\_ RECEIVAL & INSPECTION CERTIFIED BY: \_\_\_\_\_

CARRIER: \_\_\_\_\_ DELIVERY RECEIPT NUMBER: \_\_\_\_\_

COLUMNS BELOW FOR PURCHASING, RECEIVING AND ACCOUNTING.

REQUISITIONERS MAY USE PRICE COLUMNS IF TOTAL ORDER ESTIMATE EXCEEDS \$1000.00 **5-30**

SHIP BY: **ROADWAY** SHIP FROM: **1** F.O.B. **1** PROMISED DELIVERY TO CARRIER: \_\_\_\_\_

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	ITEM. SPECIFICATIONS. CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
		<b>G10CR COPPER CLAD</b> <b>1oz / 1oz. 36" x 48"</b> <b>0.062 ± .005"</b>	<b>35 EA</b>	<b>47.70</b>	<b>1,669.50</b>	
<b>2</b>		<b>G10CR COPPER CLAD</b> <b>1oz / 1oz. 36" x 48"</b> <b>0.031 ± .004"</b>	<b>12</b>	<b>24.87</b>	<b>298.68</b>	
<b>3</b>		<b>G10CR UNCLAD 36" x 48"</b> <b>0.062 ± .0075"</b>	<b>4</b>	<b>48.14</b>	<b>192.56</b>	
<b>4</b>		<b>G10CR UNCLAD 36" x 48"</b> <b>0.125 ± .012"</b>	<b>6</b>	<b>77.05</b>	<b>582.30</b>	
<b>ITEMS 1-4 MUST BE NON-FR (NO BROMINE)</b>						
<b>[5000 G10CR AS FROM ORDER]</b>						
					<b>2,743.04</b>	

REMARKS: **AVAILABLE FROM ALLIED SIGNAL**  
 7600-55438 CONTACT **PAT NIEL 319-864-4246** PHONE  
 RL 2350 (REV. 10/85) OR **SCOTT PETERSON 612-897-6556** FAX  
 Authorized By: *Russell Wells* PURCHASING



REQUESTED BY <b>R. WELLS</b>	BLDG. <b>70</b>	ROOM <b>314</b>	DELIVERY TO BLDG. ←	RM.	NOTIFY <b>R. WELLS</b>	EXT. <b>7925</b>	HOLD FOR ACCT./J.O.
APPROVED BY <b>Kenneth Wile</b>	ACCOUNT NO. <b>8052-24</b>	AMOUNT OF P.O.	SELLER CODE	STAT. CODE	SELLER'S NAME		

<input type="checkbox"/> \$10,000 <input type="checkbox"/> \$50,000 <input type="checkbox"/> OVER <input type="checkbox"/> SB <input type="checkbox"/> BB	BUYER CODE ORDER NO. REQ. DATE <b>4/22/84</b> DATE NEEDED <b>6/1/84</b> COST NOT TO EXCEED <b># 220<sup>00</sup></b>	REFER BIDS TO REQ. NO. <b>410264</b> TERMS: FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER.
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**UNIVERSITY OF CALIFORNIA**  
**PURCHASE REQUISITION**  
**FOR CONTRACT NO. DE-AC03-76SF00098**  
**WITH THE**  
**DEPARTMENT OF ENERGY**  
**REQUISITIONER-RETAIN AS FILE COPY**

**SHADED AREA FOR PURCHASING USE ONLY.**

SELLER \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Placed \_\_\_\_\_ Date \_\_\_\_\_ Contact \_\_\_\_\_

**HAZARD REVIEW - At least one box must be checked:**

<input type="checkbox"/> Chemical	<input type="checkbox"/> Laser	<input type="checkbox"/> Service Contracts
<input type="checkbox"/> Radiological	<input type="checkbox"/> Microwave	<input type="checkbox"/> Other Hazards
<input type="checkbox"/> Biological	<input type="checkbox"/> X-Ray	<input checked="" type="checkbox"/> No Hazards

DATE MATERIAL RECEIVED:	PACKING LIST NO.
DATE OF INSPECTION	RECEIVAL & INSPECTION CERTIFIED BY:
CARRIER	DELIVERY RECEIPT NUMBER

COLUMNS BELOW FOR PURCHASING, RECEIVING AND ACCOUNTING.

REQUISITIONERS MAY USE PRICE COLUMNS IF TOTAL ORDER ESTIMATE EXCEEDS \$1000.00

SHIP BY	SHIP FROM	F.O.B.	PROMISED DELIVERY TO CARRIER
			QUANTITY ACCEPTED AS ORDERED

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
		INTERNAL HARD DISK 170 MB, # APS Q 170 FOR MAC II si (QUANTUM 170 CLS MECHANISM)	1			
		AVAILABLE FROM: APS TECH 1-800-874-1428				



30 3, 01/14

REQUESTED BY R. WELLS	BLDG. 70	ROOM 314	DELIVERY TO BLDG. ←	RM.	NOTIFY R WELLS	EXT. 7925	HOLD FOR ACCT./J.O.
APPROVED BY Thomself Wells	ACCOUNT NO. 9052-24	AMOUNT OF P.O. \$99.00	SELLER CODE	STAT. CODE K13100	SELLER'S NAME		

AUTHORIZATION \$10,000  \$50,000  OVER  SB  BB

CODE 131	ORDER NO. 4814302	REQ. DATE 4/25/94
COST NOT TO EXCEED \$ 220.00	REFER BIDS TO	DATE NEEDED 6/1/94
REQ. NO. 410264	TERMS: FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER. 7	

**UNIVERSITY OF CALIFORNIA**  
**PURCHASE REQUISITION**  
 FOR CONTRACT NO. DE-AC03-76SF00098  
 WITH THE  
 DEPARTMENT OF ENERGY  
 PURCHASING FILE COPY

**SHADED AREA FOR PURCHASING USE ONLY.**

SELLER: A/S  
 6131 DANFUS  
 Street  
 City: KATOK CITY, MO 64120  
 State  
 Placed: # 5/4/94  
 Date Contact

HAZARD REVIEW - At least one box must be checked:

<input type="checkbox"/> Chemical	<input type="checkbox"/> Laser	<input type="checkbox"/> Service Contracts
<input type="checkbox"/> Radiological	<input type="checkbox"/> Microwave	<input type="checkbox"/> Other Hazards
<input type="checkbox"/> Biological	<input type="checkbox"/> X-Ray	<input type="checkbox"/> No Hazards

DATE MATERIAL RECEIVED:	PACKING LIST NO.
DATE OF INSPECTION:	RECEIVAL & INSPECTION CERTIFIED BY:
CARRIER:	DELIVERY RECEIPT NUMBER:

COLUMNS BELOW FOR PURCHASING, RECEIVING AND ACCOUNTING.  
 REQUISITIONERS MAY USE PRICE COLUMNS IF TOTAL ORDER ESTIMATE EXCEEDS \$1000.00

SHIP BY: 2 SHIP FROM: 1 F.O.B.: 2

PROMISED DELIVERY TO CARRIER
QUANTITY ACCEPTED AS ORDERED

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	ITEM. SPECIFICATIONS. CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
6		Intercom Hand Jack 170 MR, "APS Q 170" FOR MAC II (REPLACES 170 RLE MECHANISM)	1	\$99.00	\$99.00	
		APPS # 412629 REPLACES Fines APPS 3000 170 MR 174-1428				



58 b 6/1/94

REQUESTED BY <b>R. WELLS</b>	BLDG. <b>70</b>	ROOM <b>314</b>	DELIVERY TO BLDG. ←	RM.	NOTIFY <b>R. WELLS</b>	EXT. <b>7925</b>	HOLD FOR ACCT./J.O.
APPROVED BY <i>[Signature]</i>	ACCOUNT NO. <b>8052-24</b>	AMOUNT OF P.O. <b>199.<sup>00</sup></b>	SELLER CODE	STAT. CODE <b>1813700</b>	SELLER'S NAME		

ORIZATION	\$10,000 <input type="checkbox"/>	\$50,000 <input checked="" type="checkbox"/>	OVER <input type="checkbox"/>	SB <input type="checkbox"/>	BB <input type="checkbox"/>
BUYER <b>CITELLI</b>	CODE <b>131</b>	ORDER NO. <b>48149A2</b>	REQ. DATE <b>4/28/94</b>	DATE NEEDED <b>6/1/94</b>	
COST NOT TO EXCEED <b>\$ 220.<sup>00</sup></b>	REFER BIDS TO	REQ. NO. <b>410264</b>	TERMS: FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER. <b>7</b>		

**UNIVERSITY OF CALIFORNIA**  
**PURCHASE REQUISITION**  
**FOR CONTRACT NO. DE-AC03-76SF00098**  
**WITH THE**  
**DEPARTMENT OF ENERGY**  
**REQUISITIONER-FOR INFORMATION PURPOSES**

**SHADED AREA FOR PURCHASING USE ONLY.**

SELLER: **APS**  
**6131 DEANUS**  
 Street  
**KANSAS CITY MO. 64120**  
 City  
 Placed **# 5/4/94** Date  
 Contact **MARCUS**

HAZARD REVIEW - At least one box must be checked:

<input type="checkbox"/> Chemical	<input type="checkbox"/> Laser	<input type="checkbox"/> Service Contracts
<input type="checkbox"/> Radiological	<input type="checkbox"/> Microwave	<input type="checkbox"/> Other Hazards
<input type="checkbox"/> Biological	<input type="checkbox"/> X-Ray	<input checked="" type="checkbox"/> No Hazards

SHIP BY **3** SHIP FROM **1**

DATE MATERIAL RECEIVED: <b>5</b>	PACKING LIST NO. <b>94-126389</b>
DATE OF INSPECTION <b>5 11-94</b>	RECEIVAL & INSPECTION CERTIFIED BY: <b>mac</b>
CARRIER <b>UPS</b>	DELIVERY RECEIPT NUMBER

COLUMNS BELOW FOR PURCHASING, RECEIVING AND ACCOUNTING.  
 REQUISITIONERS MAY USE PRICE COLUMNS IF TOTAL ORDER ESTIMATE EXCEEDS \$1000.00

F.O.B. **2** PROMISED DELIVERY TO CARRIER

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
		INTERNAL HARD DISK 170 MB, # APS Q 170, FOR MAC II si (QUANTUM 170 ELS MECHANISM)	1	199. <sup>00</sup>	199. <sup>00</sup>	1
		ORDER# 94-126389				
		AVAILABLE From: APS TECH 1-800 874-1428				



REQUESTER <b>R. WELLS</b>	BLDG. & ROOM <b>70/314</b>	DELIVER TO <b>SAME</b>	BLDG. ROOM	NOTIFY	EXTENSION	HOLD FOR/J.O.
APPROVED BY <b>R. Wells(sof)</b>	ACCOUNT NO. <b>8052-25</b>	AMOUNT OF P.O. <b>\$200.00</b>	STAT. CODE <b>1813203</b>	REQ. NO. <b>733625</b>		

AUTHORIZATION	\$10,000 <input type="checkbox"/>	\$50,000 <input type="checkbox"/>	OVER <input type="checkbox"/>	
BUYER <b>MEHREN- 535</b>	CODE	ORDER NO. <b>28066A2</b>	REQ. DATE <b>5/13/94</b>	DATE NEEDED <b>5/16/94</b>
COST NOT TO EXCEED	TERMS <b>7</b>			

**UNIVERSITY OF CALIFORNIA**  
**PURCHASE REQUISITION**  
 FOR CONTRACT NO. DE-AC03-76SF00098  
 WITH THE  
 DEPARTMENT OF ENERGY  
**REQUISITIONER COPY**

**SHADED AREA FOR PURCHASING USE ONLY.**

**SELLER** **CALCOAST ANALYTICAL**  
**4072 WATTS STREET**  
 Street **EMERYVILLE CA**  
 City **5/13/94** State **ROBERT 510-652-2979**  
 Placed Date Contact

DATE MATERIAL RECEIVED <b>5/17/94</b>	PACKING LIST NO. <b>0513-7A/B-94</b>
DATE OF INSPECTION <b>5/17/94</b>	RECEIVAL & INSPECTION CERTIFIED BY: <b>R. WELLS</b>
CARRIER <b>LBL</b>	DELIVERY RECEIPT NUMBER

HAZARD REVIEW - Enter one of the letters in the box below.

<input checked="" type="checkbox"/> <b>N</b>	C. Chemical	L. Laser	S. Service Contracts
	R. Radiological	M. Microwave	O. Other Hazards
	B. Biological	X. X-Ray	N. No Hazards

SHIP BY <b>1</b>	SHIP FROM <b>1</b>	F.O.B. <b>2</b>	PROMISED DELIVERY TO CARRIER
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ITEM NO.	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
<b>1</b>	<b>MAKE QUANTITIVE MEASUREMENT OF FRACTION OF BROMINE (BY WT.) IN FIBERGLASS SAMPLES</b>	<b>2 EA</b>	<b>100.00</b>	<b>\$200.00</b>	<b>2</b>
<b>AVAILABLE FROM:</b> DR or WB <input checked="" type="checkbox"/> <b>Y</b> <input checked="" type="checkbox"/> <b>N</b> <input checked="" type="checkbox"/> <b>A</b> GSA <input checked="" type="checkbox"/> <b>Y</b> <input checked="" type="checkbox"/> <b>N</b> <input checked="" type="checkbox"/> <b>A</b> FSS <input checked="" type="checkbox"/> <b>Y</b> <input checked="" type="checkbox"/> <b>N</b> <input checked="" type="checkbox"/> <b>A</b>		<b>DOCUMENTATION:</b> Foreign <input checked="" type="checkbox"/> <b>Y</b> <input checked="" type="checkbox"/> <b>N</b> <input checked="" type="checkbox"/> <b>A</b> Debarred <input checked="" type="checkbox"/> <b>Y</b> <input checked="" type="checkbox"/> <b>N</b> <input checked="" type="checkbox"/> <b>A</b> Sole Source Basis <input checked="" type="checkbox"/> <b>Y</b> <input checked="" type="checkbox"/> <b>N</b> <input checked="" type="checkbox"/> <b>A</b>		<b>Total PO Amount \$200.00</b>	

REMARKS: State, UC, LBL  **Y**  **N**  **A** Price Reasonableness **2**  
 Blind-Frison  **Y**  **N**  **A** Price list No. \_\_\_\_\_  
 Price List Date \_\_\_\_\_

Authorized By **John R. Mehren**  
 PURCHASING



MAIL TO: L BRAUN/S CHOW

LAWRENCE BERKELEY LABORATORY

UNIVERSITY OF CALIFORNIA  
LAWRENCE BERKELEY LABORATORY

SEP 08 1994

BLDG: 70 ROOM: 313

FACILITIES DEPARTMENT

-----  
FOLD TO HERE

LAWRENCE BERKELEY LABORATORY

CERTIFICATION TRANSMITTAL

FIRST NOTICE - 09/02/94

TO : L BRAUN/S CHOW

BLDG: 70

ROOM: 313

FROM: MYONG CHOI  
ACCOUNTS PAYABLE

BLDG: 936B  
EXT: 7406

ROOM: 0244A

PO#: 47075A2

VENDOR: ETCH-TEK INC

INVOICE: 13052

DATE: 09/02/94

AMOUNT: \$4,205.00

PLEASE SIGN THE CERTIFICATION BELOW, AND RETURN TO ACCOUNTS PAYABLE BY  
\*\* 09/16/94 \*\*

NOTE THAT IF THIS NOTICE IS NOT RETURNED PROMPTLY, A SECOND REQUEST  
WILL BE SENT TO YOUR DIVISION ADMINISTRATOR.

\*\*\*\*\*

\* THIS IS TO CERTIFY THAT THE MATERIALS AND/OR SERVICES STATED ON \*  
 \* THIS INVOICE WERE RECEIVED OR RENDERED IN ACCORDANCE WITH THIS \*  
 \* PURCHASE ORDER. \*  
 \* \*  
 \* IN ADDITION, THE AMOUNTS CHARGED ARE IN AGREEMENT WITH THE \*  
 \* VENDOR'S PRICE SCHEDULE REFERENCED BY THE PURCHASE ORDER. \*  
 \* \*  
 \* \*  
 \* BY & DATE: \_\_\_\_\_ ACCOUNT NO. \_\_\_\_\_ \*  
 \* \*  
 \*\*\*\*\*





**ETCH-TEK, INC.**

2455 Bates Avenue  
Concord, CA 94520  
Telephone (510) 671-9800  
FAX (510) 671-0151



Core Invoice  
Terms: 2% 10 NET 30  
Invoice # 13052

*6551*  
*Les Braun*

Transaction Date: 08/26/94  
Due Date: 09/25/94  
Discount Date: 09/05/94

PO No.: 47075A2

Sold To:  
UC Lawrence Berkeley Labs  
Account Office Box 5001  
Livermore, Ca 94550  
Attention: Accounts Payable

Ship To:  
UC Lawrence Berkeley Labs  
2700 7th Street  
Berkeley, Ca 94710

Item ID	Description	Qty	UM	Price	Extension
P.C. Boards	A000873U1 Rev A Job#0598-01	2.00	Ea	1,730.00	3,460.00
Toolins		1.00	Ea	495.00	495.00
Fixture		1.00	Ea	250.00	250.00
Solder Sample	Change Order	1.00		0.00	0.00
3 Ness/6 Pos	Gerbers	1.00		0.00	0.00
Will Call	2 Boxes	1		0.00	0.00

RECEIVED  
LBL  
ACCOUNTS PAYABLE  
SEP - 1 94 11:40 AM

Subtotal 4,205.00

Total Invoice 4,205.00



*John Bercovitz*

9-15

REQUESTER <b>R. WELLS / S. CHOW</b>	BLDG & ROOM <b>25A - 119</b>	DELIVER TO <b>S. CHOW</b>	BLDG ROOM <b>25A - 131</b>	NOTIFY <b>STEVE CHOW</b>	EXTENSION <b>5948</b>	HOLD FOR / TO
APPROVED BY <i>[Signature]</i>	ACCOUNT NO <b>8052-24</b>	AMOUNT OF P.O. <b>1,863.30</b>	STAT CODE <b>6812200</b>	REQ NO <b>137040</b>		

AUTHORIZATION \$10,000 <input checked="" type="checkbox"/> \$50,000 <input type="checkbox"/> OVER <input type="checkbox"/>	BUYER <b>a. Campbell</b>	CODE <b>161</b>	ORDER NO. <b>5570752</b>	REQ DATE <b>8/22/94</b>	DATE NEEDED <b>9/14/94</b>
COST NOT TO EXCEED <b>\$1864.00</b>	TERMS: <b>7</b>				

UNIVERSITY OF CALIFORNIA  
PURCHASE REQUISITION  
FOR CONTRACT NO. DE-AC03-76SF00098  
WITH THE  
DEPARTMENT OF ENERGY

SHADED AREA FOR PURCHASING USE ONLY:

SELLER: **TELTEC CORP.**

Street: **1497 BERGER DR.**

City: **SAN JOSE, CA 95112**

Placed: **8-24** Date: **GARY ST** Contact: **408/294-3**

HAZARD REVIEW - Enter one of the letters in the box below

<input checked="" type="checkbox"/> N	C Chemical	L Laser	S Service-Contract
	R Radiological	M Microwave	O Other Hazards
	B Biological	X X-Ray	N No Hazards

*To Russ Wells, 9/24/94*

DATE MATERIAL RECEIVED:	PACKING LIST NO.
DATE OF INSPECTION:	RECEIVAL & INSPECTION CERTIFIED BY:
CARRIER:	DELIVERY RECEIPT NUMBER:

SHIP BY <b>TRUCK</b>	SHIP FROM <b>2</b>	FOB
-------------------------	-----------------------	-----

ITEM NO	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ORDERED
<b>FABRICATION</b>					
PRINTED WIRING BOARDS TO BE FABRICATED IN STRICT ACCORDANCE WITH UCLBL ENGINEERING INSTRUCTION NUMBER 137040.					
1.	A000869U2 REV. B (ANODE BIAS DISTRIBUTION BOARD)	410 EA.	2.44	1,000.50	
2.	A000874U2 REV. A (GRID WIRE TERMINATION BOARD)	104 EA.	4.70	494.00	
3.	A876877U REV. A (LITTLE ORPHAN ANODE BOARD)	64 EA.	5.39	364.80	
ATTENTION: GARY STRIBLING TELTEC CORP. 1497 BERGER DR. SAN-JOSE, CA 95112 (408) 294-9897 FAX: (408) 297-1540				1,863.30	

**COMPLETED**

REMARKS: *8.23.94: signature?* Authorized By: *a. Campbell* PURCHASING

LBL FURNISHED MAT'L PER S/D B-52606  
8-25 + 3 WKS = 9-15



*John Bercovitz*

9-15

REQUESTER <b>R. WELLS / S. CHOW</b>	BLDG & ROOM <b>25A - 119</b>	DELIVER TO <b>S. CHOW</b>	BLDG ROOM <b>25A - 131</b>	NOTIFY <b>STEVE CHOW</b>	EXTENSION <b>5948</b>	HOLD FOR / TO
APPROVED BY <i>[Signature]</i>	ACCOUNT NO <b>8052-24</b>	AMOUNT OF P.O. <b>1,863.30</b>	STAT CODE <b>6812200</b>	RFO NO <b>137040</b>		

BUYER <b>a. Campbell</b>	CODE <b>161</b>	OFFER NO <b>5570152</b>	REQ DATE <b>8/22/94</b>	DATE NEEDED <b>9/14/94</b>	UNIVERSITY OF CALIFORNIA PURCHASE REQUISITION FOR CONTRACT NO. DE-AC03-76SF00098 WITH THE DEPARTMENT OF ENERGY
COST NOT TO EXCEED <b>\$1864.00</b>	HAZARD REVIEW		TERMS <b>7</b>		

**HAZARD REVIEW - Enter one of the letters in the box below**

<input checked="" type="checkbox"/> N	C Chemical	L Laser	S Service-Contract
	R Radiological	M Microwave	O Other Hazards
	B Biological	X X-Ray	N No Hazards

SELLER: **TELTEC CORP.**  
 1497 BERGER DR.  
 SAN JOSE, CA 95112  
 GARY STRIBLING  
 408/294-9897

SHIP BY <b>TRUCK</b>	SHIP FROM <b>2</b>	FOB	QUANTITY ORDERED AS SHOWN
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ITEM NO	ITEM SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ORDERED AS SHOWN
<b>FABRICATION</b>					
PRINTED WIRING BOARDS TO BE FABRICATED IN STRICT ACCORDANCE WITH UCLBL ENGINEERING INSTRUCTION NUMBER 137040.					
1.	A00869U2 REV. B (ANODE BIAS DISTRIBUTION BOARD)	410 EA	2.45	1,000.50	
2.	A00874U2 REV. A (GRID WIRE TERMINATION BOARD)	104 EA	4.75	494.00	
3.	A87687TU REV. A (LITTLE ORPHAN ANODE BOARD)	64 EA	5.39	344.80	
ATTENTION: GARY STRIBLING TELTEC CORP. 1497 BERGER DR. SAN JOSE, CA 95112 (408) 294-9897 FAX: (408) 297-1540				<b>1,863.30</b>	

COMPLETED

REMARKS: *8.23.94: signature?*

Authorized By: *a. Campbell* PURCHASING

LBL - FURNISHED MAT'L PER S/D B-52606



OK-ac

09/09/94

REQUESTER <b>BRAUN/CHOW</b>	BLDG. & ROOM 70 313	DELIVER TO: CHOW 25A 119	BLDG. ROOM CHOW 5948	EXTENSION	HOLD FOR
APPROVED BY <b>DAIRIKI/WELLS</b>	ACCOUNT NO. 8052-24-1	AMOUNT OF P.O. 6,205.00	STAT. CODE 6812200	REQ. NO. 1356 90	DEPT. I.D./J.O.
SUBMIT CORRESPONDENCE/QUESTIONS TO BUYER:			<input type="checkbox"/> 1 CYCLOTRON RD., BERKELEY, CALIF. 94720		<input type="checkbox"/> BOX 5012 LIVERMORE, CALIF. 94550
CODE <b>CAMPBELL 161</b>	ORDER NO. 4707602	SELLER CODE	DATE 08/18/94	FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER.	
RATED ORDER	CERT. UNDER D.P.A.S. REG.	This is a rated order certified for national defense use, and you are required to follow all the provisions of the Defense Priorities and Allocations System regulation (15 CFR Part 350).		TERMS: (AS CODED) 7	

O - 1/4 10TH & 25TH	3 - 1% 30 DAYS
1 - 1/4 10 DAYS	F - 2% 10TH & 25TH
A - 1/4 15 DAYS	4 - 2% 10TH PROX.
B - 1/4 20 DAYS	G - 2% 15TH
C - 1% 10TH & 25TH	5 - 2% 10 DAYS
2 - 1% 10 DAYS	H - 2% 20 DAYS
9 - 1% 10TH PROX.	6 - 2% 30 DAYS
D - 1% 15TH	7 - NET 30 DAYS
E - 1% 20 DAYS	8 - AS SHOWN

TO  
**ETCH-TEK INC.**  
 ATTN: MR. KEN BEARD  
 2455 BATES AV  
 CONCORD, CA 94520

**UNIVERSITY OF CALIFORNIA  
 PURCHASE ORDER**  
 FOR CONTRACT NO. W-7405-ENG. 48  
 OR CONTRACT NO. DE-AC03-76SF00098  
 WITH THE DEPARTMENT OF ENERGY

FOR RESALE-State Sales Tax should not be charged, as the University holds State Sales Tax Permit SR CH 21-835970 for deliveries to Lawrence Berkeley Laboratory and Permit SR-CHA 21-135323 for deliveries to Lawrence Livermore National Laboratory.

SHIP TO  
**U.C. LAWRENCE BERKELEY LABORATORY**  
 FOR THE U.S. DEPARTMENT OF ENERGY  
 2700 7TH STREET 4707602  
 BERKELEY, CA 94710

MAIL INVOICE IN DUPLICATE TO  
 UNIVERSITY OF CALIFORNIA  
 LAWRENCE LIVERMORE NATIONAL LABORATORY  
 Accounting Office - P.O. BOX 5001  
 LIVERMORE, CALIFORNIA 94550

The Purchase Order Number shown above must appear on your invoice to facilitate payment processing.

CONFIRMING TELEPHONED ORDER TO KEN BEARD ON 08/15/94 DO NOT DUPLICATE

SHIP VIA (as coded) <input checked="" type="checkbox"/> 0 BEST WAY 1. PICKUP 2. PARCEL POST 3. UPS 4. FEDERAL EXP. 1	5. MOTOR FREIGHT 6. AIR FREIGHT 7. AIR PARCEL POST 8. FEDERAL EXP. 2 9. AIR FRT FORWARDER	TRANSPORTATION TERMS (as coded) 1. ACCOUNT OF UNIVERSITY SEE ARTICLE V ON REVERSE 2. ACCOUNT OF SELLER PREPAID 3. SEE BODY OF ORDER	F.O.B. (as coded) <input checked="" type="checkbox"/> 1. DESTINATION <input checked="" type="checkbox"/> 2. SHIPPING POINT <input checked="" type="checkbox"/> 3. SHIP PT. FREIGHT ALLOWED
SHIPPING POINT <input checked="" type="checkbox"/> 1 CONCORD, CA		SHIPPING POINT <input checked="" type="checkbox"/> 1 4.	

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE	PROMISED DEL TO CARRIER
		-FABRICATION-				
		PRINTED WIRING BOARDS, MULTILAYER, TO BE FABRICATED IN STRICT ACCORDANCE WITH UCLBL SPECIFICATION NO. 135690:				
1		ANODE WIRE MOUNT BOARD (AWMB), A000890U1 REV. A, 24 BOARDS.	4	1551.25	6,205.00	09/08/94
			PANELS	PANEL		
IN ADDITION TO THE TERMS AND CONDITIONS ON THE REVERSE OF THIS PURCHASE DOCUMENT, THE PROVISIONS OR ARTICLES LISTED BELOW AND ATTACHED HERETO, ARE MADE A PART OF THIS ORDER AND ARE EQUALLY BINDING.						
1. ADDENDUM NO. 1 (RL-2360-1) 2. AFFIRMATIVE ACTION FOR HANDICAPPED WORKERS (RL-2358 EH) 3. ANTI-KICKBACK PROCEDURES (RL-2358 AK) 4. ADDENDUM NO. 2 (RL-2360-2)						
--CONTINUED ON PAGE 2--						

The Terms and Conditions On The Reverse Side  
 Constitute A Part Of This Order

Authorized by \_\_\_\_\_

UNIVERSITY OF CALIFORNIA



*Chow - Bldg. 251 - Room 131*

03/03/94

REQUESTER WELLS/CHOW	BLDG. & ROOM 25A - 119	DELIVER TO: CHOW	BLDG. ROOM 251 - 131	NOTIFY CHOW	EXTENSION 5948	HOLD FOR
APPROVED BY WELLS	ACCOUNT NO. 452-24-1	AMOUNT OF P.O. -0-	STAT. CODE 1812200	REQ. NO. 136170	DEPT. I.D./J.O.	

SUBMIT CORRESPONDENCE/QUESTIONS TO BUYER:		<input type="checkbox"/> 1 CYCLOTRON RD., BERKELEY, CALIF. 94720		<input type="checkbox"/> BOX 5012 LIVERMORE, CALIF. 94550	
ER MARQUIS	CODE 263	ORDER NO. 4963502	SELLER CODE	DATE 03/29/94	CAL
<b>RATED ORDER</b> <b>CERT. UNDER D.P.A.S. REG.</b> This is a rated order certified for national defense use, and you are required to follow all the provisions of the Defense Priorities and Allocations System regulation (15 CFR Part 350).			TERMS: (AS CODED) 7		

- FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER.
- |                     |                    |
|---------------------|--------------------|
| O - 1/2 10TH & 25TH | 3 - 1% 30 DAYS     |
| 1 - 1/2 10 DAYS     | F - 2% 10TH & 25TH |
| A - 1/2 15 DAYS     | 4 - 2% 10TH PROX.  |
| B - 1/2 20 DAYS     | G - 2% 15TH        |
| C - 1% 10TH & 25TH  | 5 - 2% 10 DAYS     |
| 2 - 1% 10 DAYS      | H - 2% 20 DAYS     |
| 3 - 1% 10TH PROX.   | 6 - 2% 30 DAYS     |
| D - 1% 15TH         | 7 - NET 30 DAYS    |
| E - 1% 20 DAYS      | 8 - AS SHOWN       |

TO  
TELTEC CORP  
1497 BERGER DR  
SAN JOSE CA 95112

**UNIVERSITY OF CALIFORNIA  
PURCHASE ORDER**

FOR CONTRACT NO. W-7405-ENG. 48  
OR CONTRACT NO. DE-AC03-76SF00098  
WITH THE DEPARTMENT OF ENERGY

FOR RESALE-State Sales Tax should not be charged, as the University holds State Sales Tax Permit SR CH 21-835970 for deliveries to Lawrence Berkeley Laboratory and Permit SR-CHA 21-135323 for deliveries to Lawrence Livermore National Laboratory.

SHIP TO  
LAWRENCE BERKELEY LABORATORY  
2700 7TH STREET 4963502  
BERKELEY, CA 94710

MAIL INVOICE IN DUPLICATE TO  
UNIVERSITY OF CALIFORNIA  
LAWRENCE LIVERMORE NATIONAL LABORATORY  
Accounting Office - P.O. BOX 5001  
LIVERMORE, CALIFORNIA 94550

The Purchase Order Number shown above must appear on your invoice to facilitate payment processing

CONFIRMING TELEPHONED ORDER TO G. STRIBLING ON 03/29/94 DO NOT DUPLICATE.

SHIP VIA (as coded) 1. PICKUP 2. PARCEL POST 3. UPS 4. FEDERAL EXP. 1 5. 0.	5. MOTOR FREIGHT 6. AIR FREIGHT 7. AIR PARCEL POST 8. FEDERAL EXP. 2 9. AIR FRT FORWARDER	TRANSPORTATION TERMS (as coded) 1. ACCOUNT OF UNIVERSITY SEE ARTICLE V ON REVERSE 2. ACCOUNT OF SELLER PREPAID 3. SEE BODY OF ORDER	F.O.B. (as coded) 1. DESTINATION 2. SHIPPING POINT 3. SHIP PT. FREIGHT ALLOWED 4.
SHIPPING POINT 2 SAN JOSE, CA			

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE	PROMISED DEL TO CARRIER
1	A000871U1	REV. B (ANODE SIGNAL FEEDTHRU) (PANEL OF 10)	310 EA	2.99 EA	899.00	7/06/94
<p>WARRANTY:</p> <p>NOTWITHSTANDING ANY OTHER PROVISIONS OF THIS ORDER, SELLER WARRANTS THAT THE MATERIALS, SUPPLIES OR SERVICES FURNISHED SHALL BE OF THE MOST SUITABLE GRADE AND EXACTLY AS SPECIFIED IN THIS ORDER. SUCH WARRANTY SHALL INCLUDE THE FOLLOWING: PERFORMANCE, WORKMANSHIP, LABOR, MATERIALS, SELLER'S DESIGN OR ENGINEERING CONTRIBUTIONS. IF A DEFECT IS DISCOVERED IN ANY ITEM OF MATERIALS, SUPPLIES OR SERVICES COVERED IN THIS ORDER, SELLER SHALL CORRECT AT ITS EXPENSE SUCH DEFECTS AS ARE REPORTED WITHIN ONE YEAR OF FINAL ACCEPTANCE. UPON EXPIRATION OF THE APPLICABLE WARRANTY PERIOD, ALL SUCH LIABILITY SHALL TERMINATE EXCEPT FOR FRAUD, OR SUCH GROSS MISTAKES AS AMOUNT TO FRAUD, LATENT DEFECTS OR SPECIFIC FAILURE TO COMPLY WITH THE TERMS OF THIS ORDER. THIS WARRANTY IS IN ADDITION TO THE WARRANTIES IN ARTICLE IV.</p>						

**COMPLETED**

--CONTINUED ON PAGE 2--

The Terms and Conditions On The Reverse Side  
Constitute A Part Of This Order

Authorized by \_\_\_\_\_

UNIVERSITY OF CALIFORNIA







25/03/94

REQUESTER <b>WELLS/CHOW</b>	BLDG. & ROOM <b>25A - 119</b>	DELIVER TO: <b>CHOW</b>	BLDG. ROOM <b>25A -131</b>	NOTIFY <b>STEVE CHOW</b>	EXTENSION <b>5948</b>	HOLD FOR
APPROVED BY <b>WELLS</b>	ACCOUNT NO. <b>8052-24-1</b>	AMOUNT OF P.O. <b>-0-</b>	STAT. CODE <b>1812200</b>	REQ. NO. <b>136160</b>	DEPT. I.D./O.	

SUBMIT CORRESPONDENCE/QUESTIONS TO BUYER:  1 CYCLOTRON RD., BERKELEY, CALIF. 94720  BOX 5012 LIVERMORE, CALIF. 94550

BUYER <b>MARQUYIS</b>	CODE <b>263</b>	ORDER NO. <b>4963402</b>	SELLER CODE <b>U</b>	DATE <b>05/29/94</b>	TERMS: (AS CODED) <b>CAL</b>	FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER.
RATED ORDER	CERT. UNDER D.P.A.S. REG.	This is a rated order certified for national defense use, and you are required to follow all the provisions of the Defense Priorities and Allocations System regulation (15 CFR Part 350).				O - 1% 10TH & 25TH 1 - 1% 10 DAYS A - 1% 15 DAYS B - 1% 20 DAYS C - 1% 10TH & 25TH 2 - 1% 10 DAYS 9 - 1% 10TH PROX. D - 1% 15TH E - 1% 20 DAYS 3 - 1% 30 DAYS F - 2% 10TH & 25TH 4 - 2% 10TH PROX. G - 2% 15TH 5 - 2% 10 DAYS H - 2% 20 DAYS 6 - 2% 30 DAYS 7 - NET 30 DAYS 8 - AS SHOWN

TO  
**TELTEC CORP**  
**1497 BERGER DR**  
**SAN JOSE CA 95112**

**UNIVERSITY OF CALIFORNIA**  
 FOR CONTRACT NO. W-7405-ENG. 48  
 OR CONTRACT NO. DE-AC03-76SF00098  
 WITH THE DEPARTMENT OF ENERGY  
 PURCHASE ORDER COPY 4

SHIP TO  
**LAWRENCE BERKELEY LABORATORY**  
**2700 7TH STREET**  
**BERKELEY CA 94710**

To: Requisitioning Department  
 USE - INFORMATION COPY

DO NOT CONTACT SELLER  
 FOR INFORMATION CALL PURCHASING DEPT.,  
 BERKELEY EXT. 4571, OR LIVERMORE EXT. 2-9548

SHIP VIA (as coded) 1. PICKUP 2. PARCEL POST 3. UPS 4. FEDERAL EXP. 1	5. MOTOR FREIGHT 6. AIR FREIGHT 7. AIR PARCEL POST 8. FEDERAL EXP. 2 9. AIR FRT FORWARDER	TRANSPORTATION TERMS (as coded) 1. ACCOUNT OF UNIVERSITY SEE ARTICLE V ON REVERSE 2. ACCOUNT OF SELLER PREPAID 3. SEE BODY OF ORDER	F.O.B. (as coded) 1. DESTINATION 2. SHIPPING POINT 3. SHIP PT. FREIGHT ALLOWED
12 SAN JOSE, CA SHIPPING POINT 119			

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE	PROMISED DEL TO CARRIER
1	AG0087202	FABRICATION TO PROVIDE LABOR, MATERIAL & EQUIPMENT TO FABRICATE THE FOLLOWING: PRINTED WIRING BOARDS IN STRICT ACCORDANCE WITH UCLBL ENGINEERING INSTRUCTION NUMBER 136160. REV. A SHIELD WIRE MOUNT BOARD (PANEL OF 16) UCLBL WILL SUPPLY 1 SHEET G10-0310-5/.5 (3'X4' NON FR)	32 EA	13.90 EA	444.00	7/14/94

--CONTINUED ON PAGE 2--

**COMPLETED**

The Terms and Conditions On The Reverse Side  
 Constitute A Part Of This Order

Authorized by \_\_\_\_\_

UNIVERSITY OF CALIFORNIA



REQUESTER <b>L. BRAUN / S. CHOW</b>	BLDG. & ROOM <b>70 - 313</b>	DELIVER TO: <b>S. CHOW</b>	BLDG. ROOM <b>25A - 119</b>	NOTIFY <b>STEVEN CHOW</b>	EXTENSION <b>5948</b>	HOLD FOR/J.O.
APPROVED BY <i>David Russell</i>	ACCOUNT NO. <b>8052-24</b>	AMOUNT OF P.O. <b>4,205.00</b>	STAT. CODE <b>6813200</b>	REQ. NO. <b>135680</b>		

AUTHORIZATION \$10,000 <input checked="" type="checkbox"/> \$50,000 <input type="checkbox"/> OVER <input type="checkbox"/>	BUYER <b>a. Campbell</b>	CODE <b>161</b>	ORDER NO. <b>4707502</b>	REQ. DATE <b>4/1/94</b>	DATE NEEDED <b>4/26/94</b>
COST NOT TO EXCEED <b>\$4,205.00</b>	TERMS: <b>5</b>				

**UNIVERSITY OF CALIFORNIA**  
**PURCHASE REQUISITION**  
 FOR CONTRACT NO. DE-AC03-76SF00098  
 WITH THE  
 DEPARTMENT OF ENERGY

SHADED AREA FOR PURCHASING USE ONLY. **00 N M**

SELLER **ETCH - TEK INC.**

**2455 BATES AV**

Street

**CONCORD, CA 94520**

City State

Placed **4-14** **KEN BEARD**

Date Contact

HAZARD REVIEW - Enter one of the letters in the box below.

<input checked="" type="checkbox"/> N.	C. Chemical	L. Laser	S. Service Contracts
	R. Radiological	M. Microwave	O. Other Hazards
	B. Biological	X. X-Ray	N. No Hazards

REQUISITIONER-FOR  
INFORMATION PURPOSES

DATE MATERIAL RECEIVED: <b>8-26-95</b>	PACKING LIST NO. <b>13052</b>
DATE OF INSPECTION <b>8-26-94</b>	RECEIVAL & INSPECTION CERTIFIED BY: <b>138</b>
CARRIER <b>VT</b>	DELIVERY RECEIPT NUMBER

SHIP BY <b>φ - BEST WAY</b>	SHIP FROM <b>2</b>	F.O.B. <b>1</b>	PROMISED DELIVERY TO CARRIER <b>5-10</b>
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ITEM NO.	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
	<b>FABRICATION (MULTILAYER)</b>				
	<b>PRINTED WIRING BOARD TO BE FABRICATED IN STRICT ACCORDANCE WITH UCLBL ENGINEERING INSTRUCTION NUMBER 135680</b>				
<b>1.</b>	<b>GGB A000873U1 REV A (32 BOARDS) (GRATED GRID BOARD)</b> TOTAL OF 30 EACH INDIVIDUAL BOARD, WILL BE REQUIRED. ATTN.: KEN BEARD <b>NEED 30 MIN, 32 MAX.</b> <b>ETCH TEK INC.</b> <b>2455 BATES AVE.</b> <b>CONCORD, CA 94520</b> <b>(510) 671-9800</b> <b>FAX (510) 671-0151</b>	<b>2</b> <b>PANELS</b>	<b>2102.50</b> <b>PANEL</b>	<b>4,205.00</b>	<b>2</b>

**COMPLETED**

REMARKS: **LBL TO FURNISH BOARD MATERIAL TO SELLER (ON ABOUT 4/1/94).**

Authorized By: **a. Campbell**  
PURCHASING

**MICHAEL BAILEY / JIM HUNTER**



REQUESTER <b>R. WELLS / S. CHOW</b>	BLDG. & ROOM <b>25A - 119</b>	DELIVER TO: <b>S. CHOW</b>	BLDG. ROOM <b>25A - 131</b>	NOTIFY <b>STEVE CHOW</b>	EXTENSION <b>5948</b>	HOLD FOR J.O.
APPROVED BY <i>Russell Wells</i>	ACCOUNT NO. <b>8052-24</b>	AMOUNT OF P.O. <b>1,702.30</b>	STAT. CODE <b>6813200</b>	REQ. NO. <b>137060</b>		

AUTHORIZATION \$10,000 <input type="checkbox"/> <b>56534A2</b> <input checked="" type="checkbox"/> OVER <input type="checkbox"/>	BUYER <b>161</b> <i>a. Campbell</i>	CODE <b>56534A2</b>	ORDER NO.	REQ. DATE <b>8/25/94</b>	DATE NEEDED <b>09/21/94</b>
COST NOT TO EXCEED <b>\$1,700.00</b>	TERMS: <b>7</b>				

**UNIVERSITY OF CALIFORNIA**  
PURCHASE REQUISITION  
FOR CONTRACT NO. DE-AC03-76SF00098  
WITH THE  
DEPARTMENT OF ENERGY

**SHADED AREA FOR PURCHASING USE ONLY.**

SELLER PROMEX

Street 3075 OAKMEAD VILLAGE DR

City SANTA CLARA CA 95051 State

Placed 9-8 Date MIKE GRIFFIN Contact

HAZARD REVIEW - Enter one of the letters in the box below.

<input checked="" type="checkbox"/> N.	C. Chemical	L. Laser	S. Service Contracts
	R. Radiological	M. Microwave	O. Other Hazards
	B. Biological	X. X-Ray	N. No Hazards

**REQUISITIONER COPY**

DATE MATERIAL RECEIVED:	PACKING LIST NO.
DATE OF INSPECTION	RECEIVAL & INSPECTION CERTIFIED BY:
CARRIER	DELIVERY RECEIPT NUMBER

SHIP BY <u>φ - BEST WAY</u>	SHIP FROM <u>1</u>	F.O.B. <u>2</u>	PROMISED DELIVERY TO CARRIER <u>10-6</u>
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ITEM NO.	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
	"STAR" FABRICATION (LOAD PWB'S) INSTALLATION AND ASSEMBLY OF COMPONENTS ON PWB'S SHALL BE DONE IN STRICT ACCORDANCE WITH UCLBL ENGINEERING INSTRUCTION NUMBER 137060.				
1.	A00087IU1 REV. B (ANODE SIGNAL FEEDTHRU)	360 EA.	2.57 EA	925.20	
2.	A00087IU1 REV. A (ASFB)	30 EA.	2.57 EA	77.10	
3.	NRE/SOLDER STENCILS (2) PROMEX 3075 Oakmead Village Dr. Santa Clara, CA 95051 Attn.: MICHAEL GRIFFIN (408) 496-0222 FAX: (408) 496-0117	1 LOT	700.00 LOT	700.00	
				<b>1,702.30</b>	

REMARKS: 9/15 + 3 WKS = 10/6

Authorized By *a. Campbell* PURCHASING



REQUESTER <b>H. WELLS / S. CHOW</b>	BLDG & ROOM <b>25A - 119</b>	DELIVER TO <b>S. CHOW</b>	BLDG ROOM <b>25A - 131</b>	NOTIFY <b>STEVE CHOW</b>	EXTENSION <b>5948</b>	HOLD FOR J.O.
APPROVED BY 	ACCOUNT NO. <b>8052-24</b>	AMOUNT OF P.O.	STAT. CODE	REQ. NO. <b>137160</b>		

AUTHORIZATION	\$10,000 <input type="checkbox"/>	\$50,000 <input type="checkbox"/>	OVER <input type="checkbox"/>
BUYER	CODE	ORDER NO.	REQ. DATE <b>8/29/94</b>
			DATE NEEDED <b>10/19/94</b>
COST NOT TO EXCEED			TERMS

**UNIVERSITY OF CALIFORNIA**  
**PURCHASE REQUISITION**  
 FOR CONTRACT NO. DE-AC03-76SF00098  
 WITH THE  
 DEPARTMENT OF ENERGY

RETAIN LAST COPY SEND ALL  
 OTHER COPIES TO PURCHASING

**SHADED AREA FOR PURCHASING USE ONLY.**

SELLER \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Placed \_\_\_\_\_ Date \_\_\_\_\_ Contact \_\_\_\_\_

HAZARD REVIEW - Enter one of the letters in the box below.

<input checked="" type="checkbox"/> N	C. Chemical	L. Laser	S. Service Contracts
	R. Radiological	M. Microwave	O. Other Hazards
	B. Biological	X. X-Ray	N. No Hazards

DATE MATERIAL RECEIVED	PACKING LIST NO.
DATE OF INSPECTION	RECEIVAL & INSPECTION CERTIFIED BY
CARRIER	DELIVERY RECEIPT NUMBER

SHIP BY	SHIP FROM	F.O.B.	PROMISED DELIVERY TO CARRIER
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ITEM NO.	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
	<b>"STAR" FABRICATION</b>				
	<b>INSTALLATION AND ASSEMBLY OF COMPONENTS</b>	<b>1 Lot</b>			
	<b>ON PWB'S SHALL BE DONE IN STRICT ACCORDANCE WITH UCLBL ENGINEERING INSTRUCTION NUMBER 137160.</b>				
1.	<b>A000896U1 (ANODE BIAS DISTRIBUTION)</b> 420 EA.				
2.	<b>A876877U1 REV. A (LITTLE ORPHAN ANODE - OSOR / OSIR)</b> 64 EA.				
3.	<b>A000897U1 REV. A (LOAB - IS)</b> 30 EA.				
4.	<b>A000874U1 REV. A (GRID WIRE TERMINATION)</b> 104 EA.				

REMARKS:

Authorized By \_\_\_\_\_ PURCHASING



PRINT NUMBERS

UNIVERSITY OF CALIFORNIA  
LAWRENCE BERKELEY LAB

SERIAL NUMBER

REQUEST FOR PROCUREMENT

REQUESTER Rich Weidenbach DATE REQUESTED SEPT 21  
 DELIVER TO PAUL WONG DATE NEEDED SEPT 22  
 BLDG 77A ROOM WEST END PHONE NUMBER 7036  
 ACCOUNT NO. 8052-24 AUTHORIZED SIGNATURE [Signature]

QUANTITY	DESCRIPTION	APPROX PRICE
----------	-------------	--------------

50

WIRE MESH CABLE GRIP  
 GRIP RANGE 0.5 TO 0.6 INCHES  
 SINGLE EYE OR DOUBLE EYE

\$11.75 ea

70k

ONLY NEEDED ~~TO~~ FOR THURSDAY

13 ~~TO~~ MORE FOR MONDAY,  
 BALANCE WITHIN 1 MONTH

ANY MFR OK: KEARNY, WOODHEAD

ONE POSSIBLE (THOUGH NOT NECESSARILY CHEAP) SOURCE: DICK CRAW

VENDOR <u>Alameda Electrical Dis In</u>	SHIP CODE _____
ADDRESS <u>2420 Blanding Ave</u>	TOTAL COST _____
CITY <u>Alameda CA 94501</u> STATE <u>CA</u>	P.O. NO. _____
PHONE NUMBER <u>510-523-6933 Fax 510-523-4075</u>	TERMS _____
CONTACT <u>Tom Anderson</u>	PICK UP DATE _____
REMARKS <u>Tom said he could have the seven in the morning but cell first</u>	TIME AFTER _____
REQUISITION NUMBER _____	CLOSED DURING LUNCH YES <input type="checkbox"/> NO <input type="checkbox"/>
	VEHICLE _____



PRINT NUMBERS

UNIVERSITY OF CALIFORNIA  
LAWRENCE BERKELEY LAB

SERIAL NUMBER

REQUEST FOR PROCUREMENT

REQUESTER Rich Weidenbach DATE REQUESTED 9-23-94

DELIVER TO \_\_\_\_\_ DATE NEEDED 9-27-94

BLDG 70 ROOM 257 C PHONE NUMBER 486-7031

ACCOUNT NO. 8052-24 AUTHORIZED SIGNATURE JMZ

QUANTITY	DESCRIPTION	APPROX PRICE
60	Hex socket Head Cap screw 1/4-20UNC X .625 Lg Material Alloy steel	—

VENDOR Bowlin

ADDRESS 10th St

CITY Berkeley STATE CA

PHONE NUMBER 527-8282

CONTACT \_\_\_\_\_

REMARKS Black Oxide OK

SHIP CODE \_\_\_\_\_

TOTAL COST \_\_\_\_\_

P.O. NO. \_\_\_\_\_

TERMS \_\_\_\_\_

PICK UP DATE \_\_\_\_\_

TIME AFTER \_\_\_\_\_

CLOSED DURING LUNCH YES  NO

VEHICLE \_\_\_\_\_

REQUISITION  
NUMBER



9/16/94

REQUESTER <b>AL KANZAKI</b>	BLDG. & ROOM <b>25A - 119</b>	DELIVER TO: <b>Al Kanzaki</b>	BLDG. ROOM <b>25A - 119</b>	NOTIFY <b>AL KANZAKI</b>	EXTENSION <b>5562</b>	HOLD FOR/J.O.
APPROVED BY <i>Baronitz</i>	ACCOUNT NO. <b>3052-24</b>	AMOUNT OF P.O. <b>437.50</b>	STAT. CODE <b>1863200</b>	REQ. NO. <b>135390</b>		

AUTHORIZATION \$10,000 <input type="checkbox"/> <b>5584302</b> <input type="checkbox"/>	BUYER <b>Lee 235</b>	ORDER NO. <b>55843A2</b>	REQ. DATE <b>8/25/94</b>	DATE NEEDED <b>9/9/94</b>
COST NOT TO EXCEED <b>\$437.50</b>	TERMS: <b>&amp; 7</b>			

UNIVERSITY OF CALIFORNIA  
PURCHASE REQUISITION  
FOR CONTRACT NO. DE-AC03-76SF00098  
WITH THE  
DEPARTMENT OF ENERGY

SHADED AREA FOR PURCHASING USE ONLY.

SELLER **STESALIT AG** *RUSA*

c/o Pan American Composites

Street **Mission Viejo, CA**

City **8-26-94** State **Nick Spenser**

Placed Date Contact

HAZARD REVIEW - Enter one of the letters in the box below.

<input checked="" type="checkbox"/> <b>H.</b>	C. Chemical	L. Laser	S. Service Contracts
	R. Radiological	M. Microwave	O. Other Hazards
	B. Biological	X. X-Ray	N. No Hazards

DATE MATERIAL RECEIVED:	PACKING LIST NO.
DATE OF INSPECTION	RECEIVAL & INSPECTION CERTIFIED BY:
CARRIER	DELIVERY RECEIPT NUMBER

SHIP BY <b>4</b>	SHIP FROM <b>1</b>	F.O.B. <b>2</b>	PROMISED DELIVERY TO CARRIER
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ITEM	ITEM, SPECIFICATIONS, CATALOG REFERENCE	QUANTITY	UNIT PRICE	TOTAL PRICE	QUANTITY ACCEPTED AS ORDERED
1.	<b>PREPREG 1080, EP107 WITH 67% RESIN,</b> <b>.5 METER WIDE @ \$17.50 PER SQ. METER</b> <b>==(G-10 Material, NO BROMINE, LBL WILL TEST FOR BROMINE)</b>  <b>Stesalit AG</b>  <b>CH-4234 Zullwil/SO</b>  <b>SWITZERLAND</b>  <b>tel 061 791 06 01</b> <b>TELFEX # 4161 791 0604</b>  <b>CONTACT: Nick Spencer</b>  <b>(Pan American Composites</b>  <b>22682 Baltar, Mission Viejo, CA 92691</b>  <b>tel/fax 714-581-7051)</b>	<b>25</b> <b>50 METERS</b>	<b>17.50</b> <b>ON U.S. \$</b>	<b>437.50</b>	

REMARKS:

Authorized By *[Signature]* PURCHASING



OK-ac 09/09/94

REQUESTER BRAUN/CHOW	BLDG. & ROOM 70 313	DELIVER TO: CHOW 25A 110	BLDG. ROOM 110	NOTIFY CHOW	EXTENSION 048	HOLD FOR
APPROVED BY DAIRIKI/WELLS	ACCOUNT NO. 8052-24-1	AMOUNT OF P.O. 6,205.00	STAT. CODE 3012200	REQ. NO. 1355 90	DEPT. I.D./J.O.	

SUBMIT CORRESPONDENCE/QUESTIONS TO BUYER:		<input type="checkbox"/> 1 CYCLOTRON RD., BERKELEY, CALIF. 94720		<input type="checkbox"/> BOX 5012 LIVERMORE, CALIF. 94550	
BUYER CAMPBELL	CODE 161	ORDER NO. 4707602	SELLER CODE	DATE 08/18/94	ELM
RATED ORDER	CERT. UNDER D.P.A.S. REG.	This is a rated order certified for national defense use, and you are required to follow all the provisions of the Defense Priorities and Allocations System regulation (15 CFR Part 350).		TERMS: (AS CODED) 7	

FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER.

O - 1/2% 10TH & 25TH	3 - 1% 30 DAYS
1 - 1/2% 10 DAYS	F - 2% 10TH & 25TH
A - 1/2% 15 DAYS	4 - 2% 10TH PROX.
B - 1/2% 20 DAYS	G - 2% 15TH
C - 1% 10TH & 25TH	5 - 2% 10 DAYS
2 - 1% 10 DAYS	H - 2% 20 DAYS
9 - 1% 10TH PROX.	6 - 2% 30 DAYS
D - 1% 15TH	7 - NET 30 DAYS
E - 1% 20 DAYS	8 - AS SHOWN

TO  
 BICH-TEK INC.  
 ATTN: MR. KEN BEARD  
 2400 BATES AV  
 CONCORD, CA 94520

**UNIVERSITY OF CALIFORNIA**  
 FOR CONTRACT NO. W-7405-ENG. 48  
 OR CONTRACT NO. DE-AC03-76SF00098  
 WITH THE DEPARTMENT OF ENERGY  
 PURCHASE ORDER COPY 3

To: Requisitioning Department  
 USE - INFORMATION COPY  
 DISPOSITION - DESTROY

SHIP TO  
 U.C. LAWRENCE BERKELEY LABORATORY  
 FOR THE U.S. DEPARTMENT OF ENERGY  
 2700 7TH STREET 4707602  
 BERKELEY, CA 94710

DO NOT CONTACT SELLER  
 FOR INFORMATION CALL PURCHASING DEPT.  
 BERKELEY EXT. 4571, OR LIVERMORE EXT. 2-9548

CONFIRMING TELEPHONED ORDER TO KEN BEARD ON 08/15/94 DO NOT DUPLICATE

SHIP VIA (as coded) 1. PICKUP 2. PARCEL POST 3. UPS 4. FEDERAL EXP. 1 0. BEST WAY	5. MOTOR FREIGHT 6. AIR FREIGHT 7. AIR PARCEL POST 8. FEDERAL EXP. 2 9. AIR FRT FORWARDER	TRANSPORTATION TERMS (as coded) 1. ACCOUNT OF UNIVERSITY SEE ARTICLE V ON REVERSE 2. ACCOUNT OF SELLER PREPAID 3. SEE BODY OF ORDER	F.O.B. (as coded) 1. DESTINATION 2. SHIPPING POINT 3. SHIP PT. FREIGHT ALLOWED 4.
SHIPPING POINT 1 CONCORD, CA			

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE	PROMISED DEL TO CARRIER
1		-FABRICATION- PRINTED WIRING BOARDS, MULTILAYER, TO BE FABRICATED IN STRICT ACCORDANCE WITH UCLBL SPECIFICATION NO. 135890: ANODE WIRE MOUNT BOARD (AWMB), A20039001 REV. A, 24 BOARDS.	4 PANELS	1551.25 PANEL	6,205.00	09/08/94
IN ADDITION TO THE TERMS AND CONDITIONS ON THE REVERSE OF THIS PURCHASE DOCUMENT, THE PROVISIONS OR ARTICLES LISTED BELOW AND ATTACHED HERETO, ARE MADE A PART OF THIS ORDER AND ARE EQUALLY BINDING. 1. ADDENDUM NO. 1 (RL-2358-1) 2. AFFIRMATIVE ACTION FOR HANDICAPPED WORKERS (RL-2358 EH) 3. ANTI-KICKBACK PROCEDURES (RL-2358 AK) 4. ADDENDUM NO. 2 (RL-2358-2)						

--CONTINUED ON PAGE 2--

The Terms and Conditions On The Reverse Side  
 Constitute A Part Of This Order

Authorized by \_\_\_\_\_ UNIVERSITY OF CALIFORNIA



REQUESTER <b>BRAUN/CHOW</b>	BLDG. & ROOM <b>70 313</b>	DELIVER TO: <b>CHOW 25A 119</b>	BLDG. ROOM <b>CHOW 5948</b>	NOTIFY <b>CHOW 5948</b>	EXTENSION <b>5948</b>	HOLD FOR
APPROVED BY <b>DAIRIKI/WELLS</b>	ACCOUNT NO. <b>3052-24-1</b>	AMOUNT OF P.O. <b>6,205.00</b>	STAT. CODE <b>6812200</b>	REQ. NO. <b>1358 90</b>	DEPT. I.D./J.O.	

SUBMIT CORRESPONDENCE/QUESTIONS TO BUYER:  1 CYCLOTRON RD., BERKELEY, CALIF. 94720  BOX 5012 LIVERMORE, CALIF. 94550

BUYER <b>CAMPBELL</b>	CODE <b>161</b>	ORDER NO. <b>4707602</b>	SELLER CODE <b>ELM</b>	DATE <b>08/18/94</b>	FROM RECEIPT OF GOODS OR INVOICE WHICHEVER IS LATER. O - 1/2% 10TH & 25TH 3 - 1% 30 DAYS 1 - 1/2% 10 DAYS F - 2% 10TH & 25TH A - 1/2% 15 DAYS 4 - 2% 10TH PROX. B - 1/2% 20 DAYS G - 2% 15TH C - 1% 10TH & 25TH 5 - 2% 10 DAYS 2 - 1% 10 DAYS H - 2% 20 DAYS 9 - 1% 10TH PROX. 6 - 2% 30 DAYS D - 1% 15TH 7 - NET 30 DAYS E - 1% 20 DAYS 8 - AS SHOWN
<b>RATED ORDER</b>	<b>CERT. UNDER D.P.A.S. REG.</b>	This is a rated order certified for national defense use, and you are required to follow all the provisions of the Defense Priorities and Allocations System regulation (15 CFR Part 350).			TERMS: (AS CODED)

TO  
**ETCH-TEK INC.**

**UNIVERSITY OF CALIFORNIA**

**FOR CONTRACT NO. W-7405-ENG. 48  
OR CONTRACT NO. DE-AC03-76SF00098  
WITH THE DEPARTMENT OF ENERGY  
PURCHASE ORDER COPY 3**

To: Requisitioning Department  
USE - INFORMATION COPY  
DISPOSITION - DESTROY

SHIP TO

PAGE 2

DO NOT CONTACT SELLER  
FOR INFORMATION CALL PURCHASING DEPT.  
BERKELEY EXT. 4571, OR LIVERMORE EXT. 2-9548

SHIP VIA (as coded) 1. PICKUP 2. PARCEL POST 3. UPS 4. FEDERAL EXP. 1 0.	5. MOTOR FREIGHT 6. AIR FREIGHT 7. AIR PARCEL POST 8. FEDERAL EXP. 2 9. AIR FRT FORWARDER	TRANSPORTATION TERMS (as coded) 1. ACCOUNT OF UNIVERSITY SEE ARTICLE V ON REVERSE 2. ACCOUNT OF SELLER PREPAID 3. SEE BODY OF ORDER	F.O.B. (as coded) 1. DESTINATION 2. SHIPPING POINT 3. SHIP PT. FREIGHT ALLOWED 4.
---	---	--	---

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE	PROMISED DEL TO CARRIER
		THE FOLLOWING PATENT, DATA, COPYRIGHT ARTICLES ATTACHED HERETO, ARE HEREBY MADE A PART OF THIS ORDER.				
		1. REPORTING OF ROYALTIES (RL-2358 ROR)				
		2. PATENT INDEMNITY (RL-2358 PIN)				
		3. PATENT RIGHTS (RL-2358 PR/SBWPO)				
		4. ADDITIONAL DATA REQUIREMENTS (RL-2358 ADR)				
		5. RIGHTS IN DATA--GENERAL WITH ALTERNATES, I, II, III, AND V AND DOE SUPPL. SUBPARA. (D)(3) (RL-2358 RIDG)				

The Terms and Conditions On The Reverse Side  
Constitute A Part Of This Order

Authorized by \_\_\_\_\_

UNIVERSITY OF CALIFORNIA



- Quote lowest price, state delivery terms, shipping point, F.O.B. point, method of shipping. No charge for packaging, drayage or for any other purpose will be allowed over and above the price quoted herein.
- Indicate Federal excise tax separately to facilitate issuance of an excise tax exemption certificate.
- Quote Federal Supply Schedule prices, if applicable and the appropriate FSC Contract No.
- If unable to quote on merchandise as specified submit prices on equal, or suggest and describe substitutes.
- Articles listed on this form should be produced or manufactured in the United States. If of foreign make, please specify origin.
- The right is reserved to accept or reject quotations on each item separately or the quotation as a whole without further discussion and thus quotations should be on the most favorable technical and commercial terms.

REFER INQUIRIES TO:

BUYER <b>CAMPBELL</b>	CODE <b>161</b>	REQUEST NO. <b>3847702</b>	DATE <b>10/01/93</b>
TELEPHONE <b>510-486-4592 SE</b>		To be considered, your quotation must be received by <b>10/27/93</b>	Telephone quotations must be confirmed by return of this form.

**UNIVERSITY OF CALIFORNIA**  
**Request for Quotation**

**This is not an Order**

FOR CONTRACT NO. W-7405-ENG-48 OR  
CONTRACT DE-AC03-76SF00098 WITH  
THE DEPARTMENT OF ENERGY

NOTICE

- FOR RESALE-State Sales Tax should not be charged, as the University holds State Sales Tax Permit SR CH 21-835970 for deliveries to Lawrence Berkeley Laboratory.

245 East 6th Street, 6th Floor  
St. Paul, Minnesota 55101  
612/228-6400  
Fax 612/228-6572

**BUCKBEE-MEARS**  
**ATTN: MS. MAXINE PFEIFFER**  
**245 EAST 6TH STREET**  
**ST. PAUL, MN 55101**

**Buckbee-Mears**  
**St. Paul**

A UNIT OF **BMC INDUSTRIES, INC.**

SUBMIT QUOTATIONS TO BUYER SHOWN ABOVE

- LAWRENCE BERKELEY LABORATORY  
Bldg. 7, 1-Cyclotron Road  
Berkeley, Calif. 94720
- LAWRENCE BERKELEY LABORATORY  
Bldg. 69, 1-Cyclotron Road  
Berkeley, Calif. 94720
- LAWRENCE LIVERMORE NATIONAL LABORATORY  
Box 5012  
Livermore, Calif. 94550

Check Appropriate Block			
SMALL BUSINESS	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
DISADVANTAGED BUSINESS	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
WOMAN OWNED OPERATED BUSINESS	<input type="checkbox"/> YES	<input type="checkbox"/> NO	

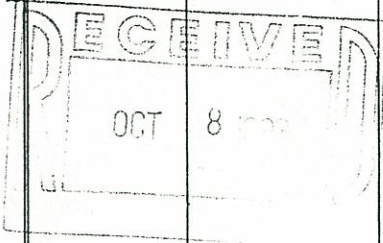
use, and you will be required to comply with the provisions of the Defense Priorities and Allocations System regulation (15 CFR Part 350).

- By submitting this quotation, quoter represents that quoter's business status has been determined pursuant to current Federal Law, Executive Order and Regulation.

**SIGN AND RETURN THIS COPY**

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	ITEM, SPECIFICATIONS, CATALOG REFERENCES	QUANTITY	UNIT PRICE	TOTAL PRICE	PROMISED DEL. TO CARRIER
1		<b>-FABRICATION-</b> <b>PRINTED CIRCUIT (PC) BOARDS, 28 OF EACH SIZE, IN ACCORDANCE WITH UCLBL SPECIFICATION NO. M7430 DATED 9-22-93.</b>	1 LOT	LOT		
<p><b>NOTES:</b></p> <p><b>A. PLEASE QUOTE ON TWO-PHASE DELIVERY, WITH OTHER OPTIONS AS DESCRIBED.</b></p> <p><b>B. PLEASE INDICATE TOTAL (LOT) PRICE, FOB-DESTINATION, SELLER-PAID FREIGHT.</b></p> <p><b>C. UCLBL TECHNICAL CONTACT: ROGER STONE, 510/486-5048.</b></p>						
<p>---CONTINUED ON PAGE 2---</p>						

071517  
071517



11-1-93 per buyer *[Signature]* 69

U.S. GOVERNMENT PRINTING OFFICE: 1992-687-217/79122

CASH DISCOUNT TERMS	SHIPPING POINT	F.O.B. POINT
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THE TERMS AND CONDITIONS ON THE REVERSE HEREOF CONSTITUTE A PART OF THIS REQUEST FOR QUOTATION.

DATE <b>11/1/93</b>	FIRM <b>Buckbee Mears</b>	SIGNATURE <i>Maxine Pfeiffer</i>	TITLE <b>Asst. Sec. Rep</b>
------------------------	------------------------------	-------------------------------------	--------------------------------



- Quote lowest price, state delivery terms, shipping point, F.O.B. point, method of shipping. No charge for packaging, drayage or for any other purpose will be allowed over and above the price quoted herein.
- Indicate Federal excise tax separately to facilitate issuance of an excise tax exemption certificate.
- Quote Federal Supply Schedule prices, if applicable and the appropriate FSC Contract No.
- If unable to quote on merchandise as specified submit prices on equal, or suggest and describe substitutes.
- Articles listed on this form should be produced or manufactured in the United States. If of foreign make, please specify origin.
- The right is reserved to accept or reject quotations on each item separately or the quotation as a whole without further discussion and thus quotations should be on the most favorable technical and commercial terms.

REFER INQUIRIES TO:

BUYER <b>CAMPBELL</b>	CODE <b>161</b>	REQUEST NO. <b>3847702</b>	DATE <b>10/01/93</b>
TELEPHONE <b>510-486-4592 SE</b>		To be considered, your quotation must be received by <b>10/27/93</b>	Telephone quotations must be confirmed by return of this form.

## UNIVERSITY OF CALIFORNIA Request for Quotation

### This is not an Order

FOR CONTRACT NO. W-7405-ENG-48 OR  
CONTRACT DE-AC03-76SF00098 WITH  
THE DEPARTMENT OF ENERGY

NOTICE

- FOR RESALE-State Sales Tax should not be charged, as the University holds State Sales Tax Permit SR CH 21-835970 for deliveries to Lawrence Berkeley Laboratory and Permit SR-CHA 21-135323 for deliveries to Lawrence Livermore National Laboratory.
- Prices will be considered firm unless otherwise indicated. Preference will be given to firm price quotations or those containing downward escalation provisions.
- Any resulting order will be certified for national defense use, and you will be required to follow all the provisions of the Defense Priorities and Allocations System regulation (15 CFR Part 350).
- By submitting this quotation, quoter represents that quoter's business status has been determined pursuant to current Federal Law, Executive Order and Regulation.

PAGE 2

SUBMIT QUOTATIONS TO  
BUYER SHOWN ABOVE

- LAWRENCE BERKELEY LABORATORY  
Bldg. 7, 1-Cyclotron Road  
Berkeley, Calif. 94720
- LAWRENCE BERKELEY LABORATORY  
Bldg. 69, 1-Cyclotron Road  
Berkeley, Calif. 94720
- LAWRENCE LIVERMORE NATIONAL LABORATORY  
Box 5012  
Livermore, Calif. 94550

Check Appropriate Block			
SMALL BUSINESS	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
DISADVANTAGED BUSINESS	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
WOMAN OWNED/OPERATED BUSINESS	<input type="checkbox"/> YES	<input type="checkbox"/> NO	

### SIGN AND RETURN THIS COPY

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	ITEM, SPECIFICATIONS, CATALOG REFERENCES	QUANTITY	UNIT PRICE	TOTAL PRICE	PROMISED DEL TO CARRIER
<p>PLEASE SUBMIT A COPY OF THE APPLICABLE PUBLISHED PRICE LIST AND COMPLETE THE FOLLOWING.</p> <p>1) QUOTER CERTIFIES THAT THE MATERIAL QUOTED IS <input type="checkbox"/> IS NOT <input checked="" type="checkbox"/> ESTABLISHED CATALOG OR MARKET PRICE, OF COMMERCIAL ITEMS, SOLD IN SUBSTANTIAL QUANTITIES, TO THE GENERAL PUBLIC.</p> <p>2) MATERIAL QUOTED HAS BEEN ON THE MARKET SINCE <u>1993</u></p> <p>3) APPROXIMATE NUMBER OF UNITS SOLD DURING ABOVE PERIOD <u>1</u></p> <p>4) APPROXIMATE CUSTOMERS MIX FOR THE UNITS SOLD:  <u>-----</u> % PRIVATE INDUSTRY  <u>100</u> % PUBLIC (GOVERNMENT, UNIVERSITIES)</p> <p>5) MOST RECENT CUSTOMERS FOR THE QUOTED MATERIAL:  <u>LBL</u></p>						

CASH DISCOUNT TERMS

CONTINUED ON PAGE 3 F.O.B. POINT

THE TERMS AND CONDITIONS ON THE REVERSE HEREOF CONSTITUTE A PART OF THIS REQUEST FOR QUOTATION.

DATE 11/1/93 FIRM Qualbe Nears SIGNATURE Marked Speffer TITLE Cost Est. Sec. Rep



1. Quote lowest price, state delivery terms, shipping point, F.O.B. point, method of shipping. No charge for packaging, drayage or for any other purpose will be allowed over and above the price quoted herein.
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6. The right is reserved to accept or reject quotations on each item separately or the quotation as a whole without further discussion and thus quotations should be on the most favorable technical and commercial terms.

REFER INQUIRIES TO:

BUYER <b>CAMPBELL</b>	CODE <b>161</b>	REQUEST NO. <b>3847702</b>	DATE <b>10/01/93</b>
TELEPHONE <b>510-486-4592 SE</b>		To be considered, your quotation must be received by <b>10/27/93</b>	Telephone quotations must be confirmed by return of this form.

## UNIVERSITY OF CALIFORNIA Request for Quotation

### This is not an Order

FOR CONTRACT NO. W-7405-ENG-48 OR  
CONTRACT DE-AC03-76SF00098 WITH  
THE DEPARTMENT OF ENERGY

NOTICE

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PAGE 3

SUBMIT QUOTATIONS TO  
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Bldg. 7, 1-Cyclotron Road  
Berkeley, Calif. 94720
- LAWRENCE BERKELEY LABORATORY  
Bldg. 69, 1-Cyclotron Road  
Berkeley, Calif. 94720
- LAWRENCE LIVERMORE NATIONAL LABORATORY  
Box 5012  
Livermore, Calif. 94550

Check Appropriate Block			
SMALL BUSINESS	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
DISADVANTAGED BUSINESS	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
WOMAN OWNED OPERATED BUSINESS	<input type="checkbox"/> YES	<input type="checkbox"/> NO	

## SIGN AND RETURN THIS COPY

ITEM NO.	LAB CATALOG NO. IF APPLICABLE	ITEM, SPECIFICATIONS, CATALOG REFERENCES	QUANTITY	UNIT PRICE	TOTAL PRICE	PROMISED DEL. TO CARRIER
		<p>STATE REALISTIC DELIVERY TO CARRIER FOR SHIPMENT TO BERKELEY IN NUMBER OF CALENDAR DAYS AFTER RECEIPT OF AN ORDER.</p> <p>QUOTE DELIVERY F.O.B. OUR RECEIVING DOCK BERKELEY, CA. IS UNIVERSITY TO INCUR SHIPPING COSTS? NO YES <u>X</u>, ESTIMATE WEIGHT <u>300 lbs.</u>, SUGGESTED METHOD OF SHIPMENT <u>UPS</u></p> <p>IF THE MATERIAL ON THIS REQUEST FOR QUOTATION IS COVERED BY A SPECIAL PRICING ARRANGEMENT, SUCH AS FEDERAL SUPPLY SCHEDULE, U.C. CONTRACT, G.S.A. CONTRACT, OR LBL/LLNL PURCHASE AGREEMENT, INDICATE THE PRICE AND CONTRACT NUMBER TO BE APPLICABLE.</p> <p>PLEASE SUBMIT THE APPLICABLE PUBLISHED PRICE LISTS.</p> <p>WARRANTY: ----- PLEASE STATE THE APPLICABLE WARRANTY AND INCLUDE A COPY OF THE WARRANTY IF SEPARATELY PUBLISHED. <u>See "Terms And Conditions Of Sale" Item #2</u></p> <p style="text-align: center;">--CONTINUED ON PAGE 4--</p>				

CASH DISCOUNT TERMS

SHIPPING POINT

F.O.B. POINT

THE TERMS AND CONDITIONS ON THE REVERSE HEREOF CONSTITUTE A PART OF THIS REQUEST FOR QUOTATION.

DATE <u>11/1/93</u>	FIRM <u>Buckbee Mears</u>	SIGNATURE <u>Marlene Deffen</u>	TITLE <u>Cust. Serv. Rep.</u>
------------------------	------------------------------	------------------------------------	----------------------------------



245 East 6th Street  
St. Paul, MN 55101  
612/228-6400  
FAX 612/228-6572  
October 29, 1993

**Buckbee-Mears  
St. Paul**  
A UNIT OF **BMC** INDUSTRIES, INC.

University of California  
Bldg. 69, 1-Cyclotron Road  
Berkeley, Calif. 94720

Attention: Campbell 161

Subject: Buckbee-Mears Quotation #71517 - 49

Reference: Your inquiry; 3487702.  
24A09126; Phases 5, 6, & 7; Star TPC.  
G10, .062"+/-.005" thick, C.5/C2

We are pleased to offer you the following prices for your inquiry.

#1 Phototool--	:\$3,200	Non-recurring
#2 Phototool--	:\$4,084	Non-recurring
#3 Phototool--	:\$5,160	Non-recurring
Drill tape----	: \$250	Non-recurring
Rout tape-----	: \$250	Non-recurring

	<u>Quantity</u>	<u>Price</u>
Phase 5----->	28	\$1,122.04 ea.
Phase 6----->	28	\$1,177.32 ea.
Phase 7----->	28	\$491.70 ea.

Phase 5: Double-sided, plated thru holes, bonded to pre-preg., & Insulator Board, immersion tin plated.  
Phase 6: Double-sided, plated thru holes, bonded to pre-preg., & Insulator Board, tin/lead plated.  
Phase 7: Insulator Board. Add to above phase 5 or 6 pricing.  
Artwork option 1: Film plots; film contacts. Artwork option 2: Film plots; glass contacts. Option 3: Glass plots; glass contacts  
UCLBL supplied art data on disc.  
Tolerance of +/- .005" on G10 thickness quoted by material Supplier.

Estimated initial delivery: To be scheduled.

The terms and conditions printed on the back of this letter constitute an integral part of this quotation. We hope you will allow us to perform this work for you. If you should have any further questions, please do not hesitate to call me, Maxine Pfeiffer (612)228-6581, or your Technical Representative, Barbara Snider (415)345-6818.

Yours very truly,

  
Customer Service Representative

TC/QLF-# 5



245 East 6th Street  
St. Paul, MN 55101  
612/228-6400  
FAX 612/228-6572  
October 29, 1993

# Buckbee-Mears St. Paul

A UNIT OF BMC INDUSTRIES, INC.

University of California  
Bldg. 69, 1-Cyclotron Road  
Berkeley, Calif. 94720

Attention: Campbell 161

Subject: Buckbee-Mears Quotation #71517 - 48

Reference: Your inquiry; 3847702.  
24A0916; Phases 3 & 4; Star TPC.  
G10, .062"+/-.005" thick, C.5/C2

We are pleased to offer you the following prices for your inquiry.

#1 Phototool--:	\$3,200	Non-recurring
#2 Phototool--:	\$4,084	Non-recurring
#3 Phototool--:	\$5,160	Non-recurring
Drill tape----	\$250	Non-recurring
Rout tape-----:	\$250	Non-recurring

	<u>Quantity</u>	<u>Price</u>
Phase 3----->	28	\$1,079.22 ea.
Phase 4----->	28	\$1,152.17 ea.

Phase 3: Board, double-sided, plated thru holes, bonded to pre-preg., immersion tin plated.

Phase 4: Board, double-sided, plated thru holes, bonded to pre-preg., tin/lead plated.

Artwork option 1: Film plots; film contacts.

Artwork option 2: Film plots; glass contacts.

Artwork option 3: Glass plots; glass contacts.

UCLBL supplied art data on disc.

Tolerance of +/- .005" on G10 thickness quoted by material Supplier.

Estimated initial delivery: To be scheduled.

The terms and conditions printed on the back of this letter constitute an integral part of this quotation. We hope you will allow us to perform this work for you. If you should have any further questions, please do not hesitate to call me, Maxine Pfeiffer (612)228-6581, or your Technical Representative, Barbara Snider (415)345-6818.

Yours very truly,



Customer Service Representative

TC/QLF-# 5



245 East 6th Street  
St. Paul, MN 55101  
612/228-6400  
FAX 612/228-6572  
October 29, 1993

**Buckbee-Mears  
St. Paul**  
A UNIT OF BMC INDUSTRIES, INC.

University of California  
Bldg. 69, 1-Cyclotron Road  
Berkeley, Calif. 94720

Attention: Campbell 161

Subject: Buckbee-Mears Quotation #71517 - 47

Reference: Your inquiry; 3847702.  
24A0916; Phases 1 & 2; Star TPC.  
G10, .062"+/-.005" thick, C.5/C2

We are pleased to offer you the following prices for your inquiry.

#1 Phototool--:	\$4,800	Non-recurring
#2 Phototool--:	\$5,685	Non-recurring
#3 Phototool--:	\$6,760	Non-recurring
Drill tape-----:	\$250	Non-recurring
Rout tape-----:	\$250	Non-recurring

	<u>Quantity</u>	<u>Price</u>
Phase 1---->	28	\$994.17 ea.
Phase 2---->	28	\$1,028.07 ea.

Phase 1: Board, double-sided, plated thru holes, no cover, immersion tin plated.

Phase 2: Board, double-sided, plated thru holes, no cover, tin/lead plated.

Artwork option 1: Film plots; film contacts.

Artwork option 2: Film plots; glass contacts.

Artwork option 3: Glass plots; glass contacts.

UCLBL supplied art data on disc.

Tolerance of +/- .005" on G10 thickness quoted by material Supplier.

Estimated initial delivery: To be scheduled.

The terms and conditions printed on the back of this letter constitute an integral part of this quotation. We hope you will allow us to perform this work for you. If you should have any further questions, please do not hesitate to call me, Maxine Pfeiffer (612)228-6581, or your Technical Representative, Barbara Snider (415)345-6818.

Yours very truly

  
Customer Service Representative

TC/QLF-# 5



245 East 6th Street  
St. Paul, MN 55101  
612/228-6400  
FAX 612/228-6572

**Buckbee-Mears**  
**St. Paul**  
A UNIT OF **BMC** INDUSTRIES, INC.

October 29, 1993

University of California  
Bldg. 69, 1-Cyclotron Road  
Berkeley, Calif. 94720

Attention: Campbell 161

Subject: Buckbee-Mears Quotation #71517 - 44

Reference: Your inquiry; 3487702.  
24A3736; Phases 5, 6, & 7; Star-Inner Sect.  
G10, .062"+/-.005" thick, C.5/C2

We are pleased to offer you the following prices for your inquiry.

#1 Phototool--:	\$739	Non-recurring
#2 Phototool--:	\$1,144	Non-recurring
#3 Phototool--:	\$3,237	Non-recurring
Drill tape----	\$250	Non-recurring
Rout tape-----:	\$250	Non-recurring

	<u>Quantity</u>	<u>Price</u>
Phase 5----->	28	\$1,026.18 ea.
Phase 6----->	28	\$1,081.46 ea.
Phase 7----->	28	\$491.70 ea.

Phase 5: Double-sided, plated thru holes, bonded to pre-preg., & Insulator Board, immersion tin plated.  
Phase 6: Double-sided, plated thru holes, bonded to pre-preg., & Insulator Board, tin/lead plated.  
Phase 7: Insulator Board. Add to above phase 5 or 6 pricing.  
Artwork option 1: Film plots; film contacts. Artwork option 2: Film plots; glass contacts. Option 3: Glass plots; glass contacts.  
UCLBL supplied art data on disc.  
Tolerance of +/- .005" on G10 thickness quoted by material Supplier. No artwork is necessary for Phase 7.

Estimated initial delivery: To be scheduled.

The terms and conditions printed on the back of this letter constitute an integral part of this quotation. We hope you will allow us to perform this work for you. If you should have any further questions, please do not hesitate to call me, Maxine Pfeiffer (612)228-6581, or your Technical Representative, Barbara Snider (415)345-6818.

Yours very truly,

  
Customer Service Representative



245 East 6th Street  
St. Paul, MN 55101  
612/228-6400  
FAX 612/228-6572  
October 29, 1993

**Buckbee-Mears**  
**St. Paul**  
A UNIT OF **BMC** INDUSTRIES, INC.

University of California  
Bldg. 69, 1-Cyclotron Road  
Berkeley, Calif. 94720

Attention: Campbell 161

Subject: Buckbee-Mears Quotation #71517 - 46

Reference: Your inquiry; 3847702.  
24A3736; Phases 3 & 4; Star-Inner Sect.  
G10, .062"+/-.005" thick, C.5/C2

We are pleased to offer you the following prices for your inquiry.

#1 Phototool--:	\$739	Non-recurring
#2 Phototool--:	\$1,144	Non-recurring
#3 Phototool--:	\$3,237	Non-recurring
Drill tape----	\$250	Non-recurring
Rout tape-----:	\$250	Non-recurring

	<u>Quantity</u>	<u>Price</u>
Phase 3---->	28	\$983.36 ea.
Phase 4---->	28	\$1,056.31 ea.

Phase 3: Board, double-sided, plated thru holes, bonded to pre-preg., immersion tin plated.

Phase 4: Board, double-sided, plated thru holes, bonded to pre-preg., tin/lead plated.

Artwork option 1: Film plots; film contacts.

Artwork option 2: Film plots; glass contacts.

Artwork option 3: Glass plots; glass contacts.

UCLBL supplied art data on disc.

Tolerance of +/- .005" on G10 thickness quoted by material Supplier.

Estimated initial delivery: To be scheduled.

The terms and conditions printed on the back of this letter constitute an integral part of this quotation. We hope you will allow us to perform this work for you. If you should have any further questions, please do not hesitate to call me, Maxine Pfeiffer (612)228-6581, or your Technical Representative, Barbara Snider (415)345-6818.

Yours very truly,

  
Customer Service Representative

TC/QLF-# 5



245 East 6th Street  
St. Paul, MN 55101  
612/228-6400  
FAX 612/228-6572  
October 29, 1993

**Buckbee-Mears  
St. Paul**  
A UNIT OF BMC INDUSTRIES, INC.

University of Calif., LBL  
Bldg. 69, 1-Cyclotron Road  
Berkeley, Calif. 94720

Attention: Campbell 161

Subject: Buckbee-Mears Quotation #71517 - 45

Reference: Your inquiry; 3847702.  
24A3736; Phases 1 & 2; Star-Inner Sect.  
G10, .062", +/- .005" thick, C.5/C2.

We are pleased to offer you the following prices for your inquiry.

#1 Phototool--:	\$1,024	Non-recurring
#2 Phototool--:	\$1,429	Non-recurring
#3 Phototool--:	\$3,695	Non-recurring
Drill tape----	\$250	Non-recurring
Rout tape-----:	\$250	Non-recurring

	<u>Quantity</u>	<u>Price</u>
Phase 1---->	28	\$899.84 ea.
Phase 2---->	28	\$933.74 ea.

Phase 1: Board, double-sided, plated thru holes, no cover, immersion tin plated.

Phase 2: Board, double-sided, plated thru holes, no cover, tin/lead plated.

Artwork option 1: Film plots; film contacts.

Artwork option 2: Film plots; glass contacts.

Artwork option 3: Glass plots; glass contacts.

UCLBL supplied art data on disc.

Tolerance of +/- .005" on G10 thickness quoted by material Supplier.

Estimated initial delivery: To be scheduled.

The terms and conditions printed on the back of this letter constitute an integral part of this quotation. We hope you will allow us to perform this work for you. If you should have any further questions, please do not hesitate to call me, Maxine Pfeiffer (612)228-6581, or your Technical Representative, Barbara Snider (415)345-6818.

Yours very truly,

  
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TC/QLF-# 5



245 East 6th Street  
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**Buckbee-Mears**  
**St. Paul**

A UNIT OF **BMC** INDUSTRIES, INC.

REGARDING THE QUOTATION SUMMARY OF STAR NOTE 128:

- 1 - SUGGESTED TIME AND LOCATION FOR PRE-AWARD CONFERENCE:  
BUCKBEE-MEARS ST. PAUL @ ANY TIME ACCEPTABLE TO LBL.
- 2 - NAME OF VENDOR CONTACT PERSON: DAN MAY 612-228-6456
- 3 - SCHEDULE AND MILESTONES:  
ALL MATERIALS READY FOR START: 4 WEEKS ARO  
FIRST ETCHING OF PHASE 1 BOARD: 2 WEEKS  
FIRST PHASE 1 BOARD READY FOR INSP. & TEST: 2 WEEKS  
DELIVERY SCHEDULE FOR PHASE 1 BOARDS: 4 WEEKS  
START OF PRODUCTION RUN FOR PHASE 2 BOARDS: 2 WEEKS  
FIRST PHASE 2 BOARD READY FOR INSP. & TEST: 2 WEEKS  
DELIVERY SCHEDULE FOR PHASE 2 BOARDS: 4 WEEKS  
START OF INSULATION BOARD ROUTING, IF APP.: 1 WEEK  
COMPLETION OF CONTRACT: 17 WEEKS
- 4 - SEE ATTACHED QA PROCEDURE.
- 5 - 4 WEEKS AFTER RECEIVING ORDER. MATERIAL PRICE IS INCLUDED IN THE PART PRICE.
- 6 - CUSTOMER HAS CHOICE OF ARTWORK OPTIONS. IF GLASS IS CHOSEN, THEN GLASS WILL BE USED.
- 7 - TEST FIXTURES FOR THESE PARTS WERE QUOTED TO BMSP AT APPROXIMATELY \$25,000 TO \$30,000. THIS SEEMS TO BE PROHIBITIVELY HIGH. BMSP CAN MAKE ITS OWN TEST FIXTURES AND THE COST TO LBL WILL BE \$3000 FOR EACH P/N. THE COST FOR TESTING WILL BE \$50 X 56 PARTS. THIS WILL TEST FOR OPENS AND SHORTS.
- 8 - BOARDS WILL BE STAMPED WITH EPOXY INK UNLESS LBL CHOOSES OTHER MEANS. SEE ALSO QA PROCEDURE.
- 9 - FINAL CLEANING IS WITH EITHER A PUMICE SCRUB OR AN AUTOMATIC SCRUBBER UNLESS LBL CHOOSES OTHER MEANS. PARTS WILL BE SHIPPED IN WOODEN BOXES. PARTS WILL BE INTERLEAVED WITH PAPER.
- 10 - SEE OTHER PAGES.
- 11 - SEE OTHER PAGES.



# BUCKBEE-MEARS ST. PAUL QUALITY ASSURANCE INSPECTION PROCEDURES AND REQUIREMENTS

CUSTOMER: LAWRENCE BERKELEY LABS (LBL)

PAGE 1 OF 4

PART NO: 24A1024

REV: --

DESCRIPTION: OUTER SECTOR

PART NO: 24A1044

REV: --

DESCRIPTION: INNER SECTOR

WRITTEN BY: R. KESKITALO (11-01-93)

UPDATED TO REV: (XX-XX-93)

COPY: G. LAMPI, D. MORSE, P. KENNELLY

\*\*\*[DESTROY OLD REVISION]\*\*\*

## I. INCOMING MATERIAL CONTROL

### A. CERTIFICATION OF COMPLIANCE MUST BE INCLUDED WITH EACH LOT SUBMITTED

1. MATERIAL: G-10 NEMA GRADE; 0.062 THK., 1/2 OZ. / 2 OZ. COPPER  
(CANNOT BE FR-4 BASED MATERIAL)

MATERIAL DESIGNATION: G10-0.062-2/0.5-B1B

### B. QUALITY LEVEL; SAMPLE PER MIL-P-55110D, SMALL LOT PLAN (SEE TABLE 1)

1. PITS AND DENTS; SAMPLE PER THE REQUIREMENTS OF MIL-P-55110D SMALL LOT SAMPLING PLAN (SEE TABLE 1). THE FOLLOWING POINT SYSTEM IS TO BE USED:

<u>LONGEST DIMENSION (INCH)</u>	<u>POINT VALUE</u>
0.005 TO 0.010	1
0.011 TO 0.020	2
0.021 TO 0.030	3
0.031 TO 0.040	7
OVER 0.041	30

POINTS ARE ASSIGNED PER PIT OR DENT, FOR THIS MATERIAL THE TOTAL POINT COUNT SHALL BE LESS THEN 30 (GRADE A, MIL-P-13949) FOR ANY 12 IN X 12 IN AREA.

2. WRINKLES; THERE SHALL BE NO WRINKLES AS SEEN UNDER NORMAL VISION
3. SCRATCHES; THE NUMBER OF SCRATCHES SHALL NOT EXCEED FIVE (5) PER SQUARE FOOT OF MATERIAL OF THE FOLLOWING SIZE LIMITS: 4 IN. MAX LENGTH WITH A DEPTH OF 20 % OF FOIL THICKNESS

### C. DIMENSIONAL

1. SAMPLE PER THE REQUIRED SAMPLING PLAN AND RECORD THE FOLLOWING INFORMATION
  - a. THICKNESS:

## II. INPROCESS MATERIAL CONTROL

### A. REGISTRATION OF LAYERS; UNLESS SPECIFIED OTHERWISE, DATUM POINTS AND FEATURES MUST REGISTER WITHIN A TRUE POSITION OF .010 INCH

### B. ETCH TOLERANCE; UNLESS SPECIFIED OTHERWISE, ALL FEATURES TO HAVE +/- .002 INCH

### C. PLATING REQUIREMENTS; MUST BE PLATED TO DRAWING REQUIREMENTS

1. PLATING: THRU HOLE COPPER PLATING; 0.0007 TO 0.00135 IN. THK.
2. PLATING: TO BE DETERMINED AT QUOTE ACCEPTANCE
3. PLATING COUPONS / SAMPLES MUST BE SENT TO THE Q.A. LAB FOR VERIFICATION



**BUCKBEE-MEARS ST. PAUL**  
**QUALITY ASSURANCE INSPECTION PROCEDURES AND REQUIREMENTS**

CUSTOMER: LAWRENCE BERKELEY LABS (LBL)

PAGE 2 OF 4

PART NO: 24A1024

DESCRIPTION: OUTER SECTOR

PART NO: 24A1044

DESCRIPTION: INNER SECTOR

**III. FINAL INSPECTION REQUIREMENTS**

- A. A FIRST ARTICLE INSPECTION PER THE REQUIREMENTS OF THE DRAWING IS TO BE DONE ON EACH NEW LOT PRODUCED. ONE PART TO BE SELECTED AT RANDOM FROM THE FIRST LOT THAT IS PRODUCED
1. CONDITIONS FOR THE FIRST ARTICLE INSPECTION
    - a. IF THE BOARDS HAVE NOT BEEN RUN FOR THREE (3) CONSECUTIVE MONTHS A FULL FIRST ARTICLE INSPECTION IS REQUIRED; THEN PROCEED WITH ANY ADDITIONAL REQUIREMENTS OF SECTION "B"
    - b. IF THE BOARDS HAVE BEEN RUN IN CONSECUTIVE MONTHS, REFER TO SECTION "B" FOR LOT INSPECTION REQUIREMENTS
    - c. UPON RECEIPT OF A CHANGE IN CUSTOMER REVISION LEVEL, A FULL MECHANICAL CHECK IS REQUIRED TO CONFIRM THE CHANGE, THEN PROCEED WITH ANY ADDITIONAL REQUIREMENTS OF THE LOT INSPECTION PLAN
- B. LOT INSPECTION PLAN
1. SAMPLE PER THE REQUIREMENTS OF TABLE 2 FOR P/N 24A1024 IN Q.A. INSPECTION PROCEDURE
  2. SAMPLE PER THE REQUIREMENTS OF TABLE 3 FOR P/N 24A1044 IN Q.A. INSPECTION PROCEDURE
- C. MARKING; PARTS TO BE MARKED AND PACKAGED PER DRAWING REQUIREMENTS
1. PART MARKING MUST BE CLEAR AND LEGIBLE
    - a. EACH PANEL TO BE MARKED WITH SUPPLIER LOGO, DATE CODE, SERIAL NUMBER
    - b. MARKING CANNOT BE SCRIBED INTO PANEL
  2. PACKAGING; MUST BE PACKAGED PER DRAWING / SPECIFICATION REQUIREMENTS
  3. SERIALIZATION OF MATERIAL; PERMANENTLY MARK ON MATERIAL THE APPROPRIATE SERIAL NUMBER SEQUENCE
    - a. BEGAN SERIAL NUMBER SEQUENCE WITH: 0001
- D. WORKMANSHIP; VISUALLY CHECK PARTS TO SEE THAT THERE IS NO EVIDENCE OF CONDUCTOR OR MATERIAL BREAKDOWN. IN THE ABSENCE OF SPECIFIC CUSTOMER REQUIREMENTS THE FOLLOWING SPECIFICATIONS WILL APPLY:
1. ACCEPTABLE SIZE LIMITS; HOLES, VOIDS, NICKS, BURRS, SCRATCHES, ETC.
    - a. SIZE: PER IPC-A-600 D; SEC. 2.0, CLASS 3
  2. ACCEPTABLE LIMITS ON MATERIAL DEFECTS;; DELAMINATION, BLISTERS, VOIDS, CRACKS, MEASLING, WRINKLES, ETC.
    - a. SIZE: PER IPC-A-600 D; SEC. 2.0, CLASS 3
  3. REWORK
    - a. NO REWORK ALLOWED



**BUCKBEE-MEARS ST. PAUL**  
**QUALITY ASSURANCE INSPECTION PROCEDURES AND REQUIREMENTS**

*CUSTOMER:* LAWRENCE BERKELEY LABS (LBL)

*PAGE 3 OF 4*

*PART NO:* 24A1024

*DESCRIPTION:* OUTER SECTOR

*PART NO:* 24A1044

*DESCRIPTION:* INNER SECTOR

- 
4. PLATED THRU HOLE VOIDS WHEN PRESENT
    - a. LIMITS; PER IPC-RB-276, TABLE 9, CLASS 3
  5. MINIMUM ANNULAR RINGS WHEN PRESENT
    - a. LIMITS; PER IPC-RB-276, TABLE 6, CLASS 3
  - E. ACCEPTANCE DATA; THE FOLLOWING DATA IS REQUIRED IN A INSPECTION ACCEPTANCE DATA PACKAGE TO BE INCLUDED WHEN PARTS ARE SHIPPED
    1. CERTIFICATE OF COMPLIANCE; MANUFACTURING
    2. CERTIFICATE OF COMPLIANCE; MATERIAL
    3. COPY OF THE FIRST ARTICLE INSPECTION AND/OR SAMPLE INSPECTION REPORT PER THE REQUIREMENTS OF THE QUALITY ASSURANCE PROCEDURES

*IV. CUSTOMER CONTROL DOCUMENTS*

A. DRAWING:

1. P/N; 24A1024; OUTER SECTOR BOARD
2. P/N; 24A0916; PAD PLANE; OUTER SECTOR BOARD
3. P/N; 24A1044; INNER SECTOR BOARD
4. P/N; 24A3736; PAD PLANE; INNER SECTOR BOARD

B. SPECIFICATION:

1. NO: STAR NOTE #128; PAD PLANE PCB SPECIFICATIONS



**BUCKBEE-MEARS ST. PAUL  
QUALITY ASSURANCE INSPECTION PROCEDURES AND REQUIREMENTS**

CUSTOMER: LAWRENCE BERKELEY LABS (LBL)

PAGE 4 OF 4

PART NO: 24A1024

DESCRIPTION: OUTER SECTOR

PART NO: 24A1044

DESCRIPTION: INNER SECTOR

**TABLE I**

<b>SMALL LOT SAMPLING PLAN PER MIL-P-55110D (TABLE VIII)</b>					
LOT SIZE	SAMPLE SIZE	LOT SIZE	SAMPLE SIZE	LOT SIZE	SAMPLE SIZE
2 TO 15	2	16 TO 40	3	41 TO 65	5
66 TO 110	7	110 TO 180	10	---	---

ONE (1) FAILURE IS CAUSE FOR LOT REJECTION. CORRECTIVE ACTION IS NECESSARY AND RE-SUBMISSION OF THE LOT FOR RE-INSPECTION IS REQUIRED. FOR LOT SIZES IN EXCESS OF 180 PARTS USE SAMPLING PLAN OUTLINED IN MIL-STD-105D, INSPEC. LEVEL 2, SINGLE NORMAL AT A AQL LEVEL OF 2.5

<b>MIL-STD-105D, INSPEC. LEVEL 2, SINGLE NORMAL, AQL 2.5</b>			
LOT SIZE	SAMPLE SIZE	ACCEPT WITH	REJECT WITH
2 TO 50	5	0	1
51 TO 150	20	1	2
151 TO 280	32	2	3
281 TO 500	50	3	4
501 TO 1200	80	5	6



**BUCKBEE-MEARS ST. PAUL  
QUALITY ASSURANCE INSPECTION PROCEDURES AND REQUIREMENTS**

CUSTOMER: LAWRENCE BERKELEY LABS (LBL)

PART NO: 24A1024

REV: \_\_\_\_\_

DESCRIPTION: OUTER SECTOR BOARD

LOT NO: \_\_\_\_\_; LOT SIZE: \_\_\_\_\_; SAMPLE SIZE: \_\_\_\_\_; DATE: \_\_\_\_\_

SERIAL NO: \_\_\_\_\_

**TABLE 2**

*I. FIRST ARTICLE REQUIREMENT*

A. WHEN REQUIRED ATTACH A COPY OF THE FULL FIRST ARTICLE TO THIS DATA PACKAGE

*II. LOT SAMPLE REQUIREMENTS*

A. MECHANICAL; SAMPLE LOT 100 %

1. LENGTH: TOP, 41.040 +/- .030: \_\_\_\_\_
2. LENGTH: BTM, 25.391 +/- .030: \_\_\_\_\_
3. WIDTH: 29.200 +/- .030: \_\_\_\_\_
4. THICKNESS: .125 +/- .010: \_\_\_\_\_

B. VISUAL; SAMPLE LOT 100 %

1. MATERIAL FINISH; NO BLISTERS, WRINKLES, PEELING, DENTS, EXPOSED FIBRE, EXTRANEIOUS COPPER, RESIDUE ON PARTS: PASS / FAIL
2. FEATURE SHAPE; CLEAN CUT EDGES AND HOLES, NO BURRS: PASS / FAIL
3. CIRCUIT ETCH; CLEAN LINES NO PITS, VOIDS, PINHOLES, SCRATCHES WAVENESS, UNDER/OVER ETCH, LIFTED CIRCUITRY: PASS / FAIL
4. PLATING; CONSISTENT IN APPEARANCE, PER SPECIFICATIONS : (NO PLATING ON CIRCUIT SIDE OF BOARD) PASS / FAIL
5. PART MARKING; CLEAR AND LEGIBLE: PASS / FAIL
6. PANEL ASSEMBLY FLATNESS; 0.375 MAX., ANY POINT ON SURFACE: PASS / FAIL

*III. A COPY OF THIS DATA SHEET MUST BE SENT TO THE CUSTOMER WITH PARTS*

*IV. NOTE:* \_\_\_\_\_



**BUCKBEE-MEARS ST. PAUL**  
**QUALITY ASSURANCE INSPECTION PROCEDURES AND REQUIREMENTS**

CUSTOMER: LAWRENCE BERKELEY LABS (LBL)

PART NO: 24A1044

REV: \_\_\_\_\_

DESCRIPTION: INNER SECTOR BOARD

LOT NO: \_\_\_\_\_; LOT SIZE: \_\_\_\_\_; SAMPLE SIZE: \_\_\_\_\_; DATE: \_\_\_\_\_

SERIAL NO: \_\_\_\_\_

**TABLE 3**

**I. FIRST ARTICLE REQUIREMENT**

A. WHEN REQUIRED ATTACH A COPY OF THE FULL FIRST ARTICLE TO THIS DATA PACKAGE

**II. LOT SAMPLE REQUIREMENTS**

A. MECHANICAL; SAMPLE LOT 100 %

1. LENGTH: TOP, 26.000 +/- .030: \_\_\_\_\_
2. LENGTH: BTM, 10.460 +/- .030: \_\_\_\_\_
3. WIDTH: 29.000 +/- .030: \_\_\_\_\_
4. THICKNESS: .125 +/- .010: \_\_\_\_\_

B. VISUAL; SAMPLE LOT 100 %

1. MATERIAL FINISH; NO BLISTERS, WRINKLES, PEELING, DENTS, EXPOSED FIBRE, EXTRANEIOUS COPPER, RESIDUE ON PARTS: PASS / FAIL
2. FEATURE SHAPE; CLEAN CUT EDGES AND HOLES, NO BURRS: PASS / FAIL
3. CIRCUIT ETCH; CLEAN LINES NO PITS, VOIDS, PINHOLES, SCRATCHES WAVENESS, UNDER/OVER ETCH, LIFTED CIRCUITRY: PASS / FAIL
4. PLATING; CONSISTENT IN APPEARANCE, PER SPECIFICATIONS : (NO PLATING ON CIRCUIT SIDE OF BOARD) PASS / FAIL
5. PART MARKING; CLEAR AND LEGIBLE: PASS / FAIL
6. PANEL ASSEMBLY FLATNESS; 0.375 MAX., ANY POINT ON SURFACE: PASS / FAIL

**III. A COPY OF THIS DATA SHEET MUST BE SENT TO THE CUSTOMER WITH PARTS**

**IV. NOTE:** \_\_\_\_\_