

Space Telescope Science Institute  
 Operated by AURA  
 3700 San Martin Drive  
 Baltimore, MD 21218

Purchase Order: 29050

Page: 1 of 5  
 Date Printed: 12/05/200

Order To: Infrared Laboratories Inc  
 1808 East 17th Street  
 Tucson, AZ 85719

96203

Ship To: Space Telescope Science Institute  
 Operated by AURA  
 3700 San Martin Drive  
 Baltimore, MD 21218

Contact: Kirby Hnat Ph: 520-622-7074 Fax: 520-623-0765

ORDER DATE	BUYER	TERMS	FOB	SALES ORDER	SHIP VIA	DELIVER TO		
12/04/00	John Crapster	1% 10 NET 30	OriginPPY&CHG		FEDEX PR 1	PATTY REEVES		
LINE	ITEM/DESCRIPTION	REV	U/M	DUE DATE	DESIRED DATE	ORDER QUANTITY	NET UNIT COST	EXTENDED COST
***** * CONFIRMATION * ***** A C K N O W L E D G M E N T R E Q U I R E D ***** Reference Infrared Laboratories Quote #001532-00. Tax Exempt Cert No: 31061634								
1	QCA-ACCESS CUSTOM VACUUM CASE APPROX. 16" OD, EXTERNAL CASE FLAT. 0.5" WALL THICKNESS, TBD OUTSIDE ANODIZING TOTAL WORK HEIGHT=20", FLANGED CASE ATTACHMENTS AT THE THREE CASE ORING ATTACHMENTS. QTY ONE CASE SPLIT. MOUNTING HOLES ON CASE OD FOR FUTURE CART WINGS.  Mfg Part: QCA-ACCESS			EA 06/01/01	06/01/01	1.0000	15,900.0000	\$15,900.00
Req: 105457  Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254								
2	QCA-ACCESS CTI 1050, TWO STAGES REFRIGERATOR WITH 1020 AIR COOLED COMPRESSOR AND ONE SET OF 10 FT. FLEX LINES INSTALLED AND CHECKED OUT FOR OPERATION WITH SYSTEM. COMPRESSOR SYSTEM POWER IS FOR LOW VOLTAGE 200-230 VOLT, 3 PHASE, 60HZ OR 50HZ POWER INPUT  Mfg Part: QCA-ACCESS			EA 06/01/01	06/01/01	1.0000	21,735.0000	\$21,735.00
Req: 105457  Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254								
3	QCA-ACCESS CASE SPACER TO MOUNT CRYOCOOLER, PRICE INCLUDES STAGE INTERFACE TUBES FOR BAFFLING THERMAL RADIATION.  Mfg Part: QCA-ACCESS			EA 06/01/01	06/01/01	1.0000	3,255.0000	\$3,255.00
Req: 105457  Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254								
4	QCA-ACCESS SHOCK ABSORBING VIBRATION REDUCTION MOUNT FOR CRYOCOLLER  Mfg Part: QCA-ACCESS			EA 06/01/01	06/01/01	1.0000	5,650.0000	\$5,650.00
Req: 105457  Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254								
5	QCA-ACCESS ALUMINUM COLD PLATE THERMALLY COUPLED TO FIRST STAGE. TBD NOTCH DETAILS FOR PASSING CUSTOMER CABLES THRU COLD PLATES. THRU HOLE DETAIL FOR SECOND STAGE TERMINATED LEVEL WITH COLD PLATE.  Mfg Part: QCA-ACCESS			EA 06/01/01	06/01/01	1.0000	2,170.0000	\$2,170.00
Req: 105457  Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254								
6	QCA-ACCESS RADIATION SHEILD ATTACHED TO COLD PLATE, INCLUDES SPLIT AT CASE SPLIT. PEM INSERTS LOCATED AT SPLIT LOCATION  Mfg Part: QCA-ACCESS			EA 06/01/01	06/01/01	1.0000	2,350.0000	\$2,350.00
Req: 105457  Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254								
7	QCA-ACCESS CUSTOM GOLD PLATED COPPER FINGERS WITH INTERFACE FLANGES FOR STRAP MOUNTING 1ST STAGE TO COLD PLATE. TEMPERATURE GRADIENT OPTIMIZED FOR 15 DEGREES.  Mfg Part: QCA-ACCESS			EA 06/01/01	06/01/01	1.0000	1,275.0000	\$1,275.00
Req: 105457  Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254								

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12/04/00	John Crapster	1% 10 NET 30	OriginPPY&CHG		FEDEX PR 1	PATTY REEVES		
LINE	ITEM/DESCRIPTION	REV	U/M	DUE DATE	DESIRED DATE	ORDER QUANTITY	NET UNIT COST	EXTENDED COST
8	Mfg Part: QCA-ACCESS Req: 105457 Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254 QCA-ACCESS EA 06/01/01 06/01/01 GRID OF TAPPED HOLES ON COLD PLATE TO ALLOW MOUNTING OF OPTICAL COMPONENTS AND SUPPORT COMPONENTS Mfg Part: QCA-ACCESS Req: 105457 Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254					1.0000	875.0000	\$875.00
9	Mfg Part: QCA-ACCESS Req: 105457 Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254 QCA-ACCESS EA 06/01/01 06/01/01 CUSTOM RIGID SUPPORT SYSTEM BETWEEN CASE AND COLD PLATE. SUPPORTS WILL ACCOMMODATE LARGE DIFFERENCES IN THERMAL CONTRACTION Mfg Part: QCA-ACCESS Req: 105457 Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254					1.0000	1,575.0000	\$1,575.00
10	Mfg Part: QCA-ACCESS Req: 105457 Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254 QCA-ACCESS EA 06/01/01 06/01/01 CUSTOM RIGID STRAPS BETWEEN CASE AND SHIELDS ON REMOVABLE END OF DEWAR Mfg Part: QCA-ACCESS Req: 105457 Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254					1.0000	1,575.0000	\$1,575.00
11	Mfg Part: QCA-ACCESS Req: 105457 Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254 QCA-MSC 037 EA 06/01/01 06/01/01 LARGE CAPACITY GETTER CONTAINER MOUNTED ON COLD PLATE Mfg Part: QCA-ACCESS Req: 105457 Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254					1.0000	420.0000	\$420.00
12	Mfg Part: QCA-ACCESS Req: 105457 Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254 QCA-ACCESS EA 06/01/01 06/01/01 JUMP START LN2 FLOW SYSTEM MOUNTED BETWEEN HEAT EXCHANGE PLATE AND COLD PLATE. ADDITIONAL EXTENSION FINGER ALONG DEWAR AXIS TO PROVIDE ADDITIONAL JUMP START STATIONS. SS INLET AND OUTLET PORTS WITH INDIUM WIRE VACUUM SEAL. INCLUDES POP OFF VENTING FOR SAFETY Mfg Part: QCA-ACCESS Req: 105457 Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254					1.0000	4,120.0000	\$4,120.00
13	Mfg Part: QCA-ACCESS Req: 105457 Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254 QCA-ACCESS EA 06/01/01 06/01/01 MANUAL VACUUM VALVE THERMIONICS (ML-1500-H) USING KF-40 BULKHEAD FASTENED TO TOP COVER Mfg Part: QCA-ACCESS Req: 105457 Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254					1.0000	610.0000	\$610.00
14	Mfg Part: QCA-ACCESS Req: 105457 Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254 QCA-ACCESS EA 06/01/01 06/01/01 TBD KF-PORT WITH BULKHEAD ATTACHMENT TO TOP COVER FOR CUSTOMERS PRINA VACUUM GAUGE Mfg Part: QCA-ACCESS Req: 105457 Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254					1.0000	195.0000	\$195.00

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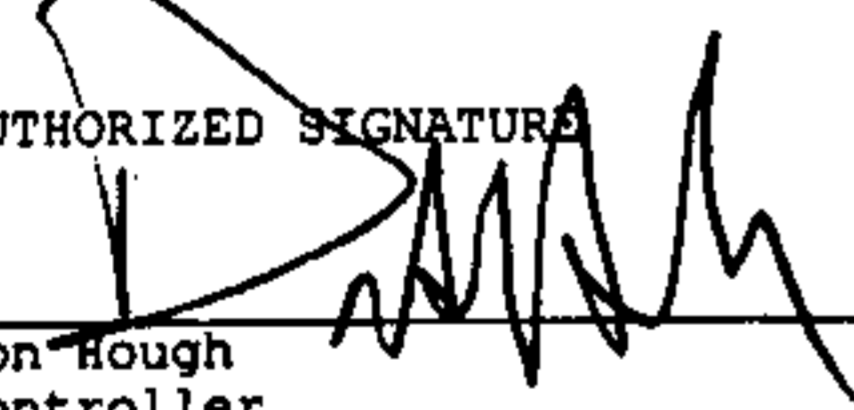
Contact: Kirby Hnat Ph: 520-622-7074 Fax: 520-623-0765

ORDER DATE	BUYER	TERMS	FOB	SALES ORDER	SHIP VIA	DELIVER TO		
12/04/00	John Crapster	1% 10 NET 30	OriginPPY&CHG		FEDEX PR 1	PATTY REEVES		
LINE	ITEM/DESCRIPTION	REV	U/M	DUE DATE	DESIRED DATE	ORDER QUANTITY	NET UNIT COST	EXTENDED COST
15	QCA-ECP61I 024 DA HERM 61 PIN CONNECTOR AND PLUG INSTALLED ON DEWAR  Mfg Part: QCA-ECP61I 024  Req: 105457  Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254		EA	06/01/01	06/01/01	1.0000	650.0000	\$650.00
16	QCA-ECP55I 022 DA HERM 55 PIN CONNECTOR AND PLUG INSTALLED ON DEWAR  Mfg Part: QCA-ECP55I 022  Req: 105457  Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254		EA	06/01/01	06/01/01	1.0000	585.0000	\$585.00
17	QCA-ECP41I 020 DA HERM 41 PIN CONNECTOR AND PLUG INSTALLED ON DEWAR  Mfg Part: QCA-ECP41I 020  Req: 105457  Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254		EA	06/01/01	06/01/01	1.0000	525.0000	\$525.00
18	QCA-ECP32I 018 DA HERM 32 PIN CONNECTOR AND PLUG  Mfg Part: QCA-ECP32I 018  Req: 105457  Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254		EA	06/01/01	06/01/01	1.0000	460.0000	\$460.00
19	QCA-ECP26I 016 DA HERM 26 PIN CONNECTOR AND PLUG INSTALLED ON DEWAR  Mfg Part: QCA-ECP26I 016  Req: 105457  Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254		EA	06/01/01	06/01/01	1.0000	420.0000	\$420.00
20	QCA-ECP19I 014 DA HERM 19 PIN CONNECTOR AND PLUG INSTALLED ON DEWAR  Mfg Part: QCA-ECP19I 014  Req: 105457  Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254		EA	06/01/01	06/01/01	1.0000	380.0000	\$380.00
21	QCA-ECP18I 012 DA HERM 18 PIN CONNECTOR AND PLUG ON DEWAR  Mfg Part: QCA-ECP18I 012  Req: 105457  Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254		EA	06/01/01	06/01/01	1.0000	380.0000	\$380.00
22	QCA-ECP12I 010 DA HEAM 12 PIN CONNECTOR AND PLUG INSTALL ON DEWAR  Mfg Part: QCA-ECP12I 010  Req: 105457  Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254		EA	06/01/01	06/01/01	1.0000	340.0000	\$340.00
23	QOW BMF O 10 048 WINDOW BLANK FLANGE ORING SEAL 10" QTY ONE EACH FOR 61,55,41,32,26,19,18, AND 12 PIN CONNECTORS. MOUNTED ON CASE FLATS  Mfg Part: QOW BMF O 10 048		EA	06/01/01	06/01/01	8.0000	210.0000	\$1,680.00

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12/04/00	John Crapster	1 & 10 NET 30	OriginPPY&CHG		FEDEX PR 1	PATTY REEVES		
LINE	ITEM/DESCRIPTION	REV	U/M	DUE DATE	DESIRED DATE	ORDER QUANTITY	NET UNIT COST	EXTENDED COST
	Req: 105457							
	Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254							
24	QCM-HCOIL 012 DM HELICOILS INSTALLED IN CASE AT EACH INTERFACE SECTION Mfg Part: QCM-HCOIL 012			EA 06/01/01	06/01/01	32.0000	10.0000	\$320.00
	Req: 105457							
	Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254							
25	QCA-SERV 053 DESIGN, LEAK CHECKING, CRYOGENIC TESTING AND DOCUMENTATION. TO INCLUDE TEMPORARY INSTRUMENTS FOR VERIFICATION OF CRYO-PERFORMANCE Mfg Part: QCA-SERV 053			EA 06/01/01	06/01/01	1.0000	3,000.0000	\$3,000.00
	Req: 105457							
	Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254							
26	SHIP FREIGHT CHAGES SHIPPING CHARGES			LOT 06/01/01	06/01/01	0.0000	0.0000	\$1,750.00
	Req: 105457							
	Prime Contract #: AURA -DDRF AOP: 0545-001 1.1.01.41.00.00 D0001.82254							
<p>The Space Telescope Science Institute has established a Supplier Hotline, (410) 338-4818, with which you may confidentially report any alleged fraudulent or unethical practices relating to STSci procurement activities.</p> <p>This is a firm fixed priced contract.</p> <p>Upon receipt of faxed copy of purchase order, please expedite shipment.</p> <p>This order is subject to Attachment 1, "STSci fixed price FAR clauses/NASA FAR supplement" attached herein.</p> <p>AUTHORIZED SIGNATURE                    Don Rough                  Controller</p> <p>ACKNOWLEDGEMENT: Seller is requested to sign below, indicating acceptance of this order, and mail or fax (410-338-4799) a copy of it back to the Buyer.</p> <p>Acknowledged By: _____</p> <p>Title: _____ Date: _____</p> <p>Bill To:                  Space Telescope Science Institute                  Attn: Accounts Payable Department                  3700 San Martin Drive                  Baltimore, MD 21218</p>								
							PO Total Amt:	\$72,195.00

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 Baltimore, MD 21218

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ORDER DATE	BUYER	TERMS	FOB	SALES ORDER	SHIP VIA	DELIVER TO		
05/03/01	John Crapster	14 10 NET 30	Shipping Point		Fed Exp Truck	Patty Reeves		
LINE	ITEM/DESCRIPTION	REV	U/M	DUE DATE	DESIRED DATE	ORDER QUANTITY	NET UNIT COST	EXTENDED COST
<p>*****                      CONFIRMATION                      *****                      ACKNOWLEDGMENT REQUIRED                      *****</p> <p>CHANGE ORDER #1 ISSUED TO REVISE DELIVERY DATE TO SEPTEMBER 7, 2001.                      Reference Infrared Laboratories Quote #001710-00.                      Tax Exempt Cert No: 31061634</p> <p>1 DEWAR Reference #JHKJ24A, Which Includes EA 09/07/01 09/07/01 1.0000 38,285.0000 \$38,285.00                      14 QCA-ACCESS line Items Per Infrared Laboratories Quote #001710-00,                      dated 04/30/01.                      Req: 106085</p> <p>Prime Contract #: AURA -DDRF                      AOP: 0545-001 1.1.01.41.00.00 D0001.82254</p> <p>2 SHIP LOT 09/07/01 09/07/01 0.0000 0.0000 \$250.00                      Estimated Shipping and Handling Charges                      Will Be Invoiced At Actual Cost, Not To Exceed \$250.00.                      Req: 106085</p> <p>Prime Contract #: AURA -DDRF                      AOP: 0545-001 1.1.01.41.00.00 D0001.82254</p> <p>This is a firm fixed priced contract.                      Upon receipt of faxed copy of purchase order, please expedite shipment.                      The Space Telescope Science Institute has established a Supplier Hotline, (410) 338-4818, with which you may confidentially report any alleged fraudulent or unethical practices relating to STSci procurement activities.                      This order is subject to Attachment 1, "STSci fixed price FAR clauses/NASA FAR supplement" attached herein.</p> <p>AUTHORIZED SIGNATURE                        Paschal J. Venanzi                      Supervisor of Procurement</p> <p>ACKNOWLEDGEMENT: Seller is requested to sign below, indicating acceptance of this order, and mail or fax (410-338-4799) a copy of it back to the Buyer.                      Acknowledged By: _____                      Title: _____ Date: _____</p> <p>Bill To:                      Space Telescope Science Institute                      Attn: Accounts Payable Department                      3700 San Martin Drive                      Baltimore, MD 21218</p> <p>PO Total Amt: \$38,535.00</p>								