塑料闪烁体研制合同

甲方: 山东大学物理学院

乙方:北京高能科迪科技有限公司

根据《中华人民共和国合同法》经甲、乙双方协商一致就甲方委托乙方研制加工塑料闪烁体一事达成如下协议。

- 1. 甲方委托乙方研制加工 HND-S2 型塑料闪烁体 外型尺寸: 六边形带孔薄闪烁体(注: 计量单位 mm) 数量: 1180 片
- 2. 主要性能参数

Γ发光效率≤50%

- 3. 完成日期: 自合同签订后 2 个月完成。
- 4. 研制费用
 六边形带孔薄闪烁体(单位 mm)
 30元/件*1180件
 总计:人民币 35400元(大写人民币:叁萬伍仟肆佰元整)开具普通发票
- 5、加工要求 严格按照甲方提供图纸加工。

6、责任与义务

甲方:

- (1) 甲方一次性预付给乙方全部货款人民币 35400 元(叁萬伍仟肆仟元整)
- (2) 甲方如需更改原设计,双方协商解决。其中产生的费用由甲方承担。

乙方:

- (1) 乙方应按照甲方所提供的技术要求保证合作项目顺利进行,保证成品达到所述主要性能指标。
- (2) 乙方负责成品包装及运输。
- 7、合同履行过程中如发生争议由双方协商解决。协商无果双方商定申请北京仲 裁委员会仲裁。

8、本合同经双方签字盖章后生效。

甲方:山东大学物理学院 甲方委托代理人签字: 盖章: 日期:



YanTai QianFeng Electronic Science And Technology Co., LTD.

Θ

烟台乾沣电子科技有限公司

销售合同

签约日期: 2015-11-19

采购方:山东大学物理学院 地址:山东省济南市山大南路 27 号 Tel:13583156541 Fax:0531-88364515

供货方: 烟台乾沣电子科技有限公司 地址: 山东省烟台市青年路 16 号 <u>Tel:13697635056</u> 合同编号: 20151119003

联系人: 冯存峰

联系人:曹玉伟 Fax:0535-6398060

货物名称	产品描术	数量	计量单位	单价	总金额	备注
定制铅板	按照图纸	400	个	10	4000.00	
合计人民币金额 (大写): 肆仟元整		合计人国	民币金额(大	、写): Y	4000.00	

要求:

- 1. 结算方式: 预付货款。
- 2. 交货期: 合同签订后两周~四周内交货。

3. 交货期:买方所在地点。

- 运输方式、费用承担及责任:国内快递,运输费用同供货方承担;如货物在运输过程 中发生毁坏。丢失 等情况,所有损失由供货方承担。
- 5. 合同签订地点:山东省烟台市
- 6. 合同争议或纠纷:双方应友好协商解决,如协商无法解决,可向烟台市所管辖权的人民法院提起诉讼
- 7. 其它约定事项:本合同一式2份双方各执1份。自双方授权代表签字或盖章后生效。合同传真件有效。

供货方帐号信息:

公司名称: 烟台乾沣电子科技有限公司 开户行: 烟台银行福山路支行 帐号:53501600120100000166

彩购方:山东大学

授权代表:

签署日期:



BÔD	东莞市博鼎塑胶电子有限公司
	DongGuan BoDing Plastic Electronics Co.,Ltd.
	报价单

1区川 平		
创新 合作 超越 品质	日期	2017/3/21
厂区:东莞市东城区柏洲边管理区 邮编:523290		
电话: 0769-89786676 传真: 0769-81834542		
联络人: 郑生 15818268103 18664097776 xfsjdz@163.com		
特为下面客户报价	报价单号	BOD-17032108
公司名称:山东大学	报价有效期至	2017/4/21
地址: 山东省济南市山大南路27号山东大学中心校区	客户编号	B0D-17031605
联络人:季树龙 电话: 13853101300 传真:		

物料编号	规格	单 位	单 价	备注	
1056D	108.26MM*125MM	PCS	2.36		
小计					
合计金额:					
备注:		账户资料			
产品价格:以上报价不含税,含	各税加17点,含运费。	公司名称:东莞市博鼎塑胶电子有限公司			
(如有特殊要求另计)		开户行:中国银行东莞市石碣支行			
	5制作400张样品发由甲方检验(加工要求:加工 ,检验合格后甲方拨付全款,乙方将所有纸张加	帐号:700357740730			
产品起订量:10000PCS	····· 脏 //	国税:44190057	4537077		
交货方式:快递或送货	Mª WEXT				
交货地点:贵司仓库					

YanTai QianFeng Electronic Science And Technology Co., LTD.

烟台乾沣电子科技有限公司

销售合同

签约日期: 2015-11-19

采购方: 山东大学物理学院 地址: 山东省济南市山大南路 27 号 Tel: 13583156541 Fax:0531-88364515

供货方: 烟台乾沣电子科技有限公司 地址:山东省烟台市青年路 16 号 Tel:13697635056

合同编号: 20151119002

联系人: 冯存峰

联系人:曹玉伟 Fax:0535-6398060

货物名称	产品描术	数量	计量单位	单价	总金额	备注
铝质端盖板	按照图纸	10	个	115	1150.00	
合计人民币金额 (大写): 壹仟壹佰伍拾元整		合计	十人民币金额	〔(大写〕): ¥1150.00)

要求:

- 1. 结算方式: 预付货款。
- 2. 交货期: 合同签订后两周~四周内交货。

3. 交货期:买方所在地点。

- 4. 运输方式、费用承担及责任: 国内快递, 运输费用同供货方承担;如货物在运输过程 中发生毁坏。丢失 等情况,所有损失由供货方承担。
- 5. 合同签订地点:山东省烟台市
- 6. 合同争议或纠纷:双方应友好协商解决,如协商无法解决,可向烟台市所管辖权的人民法院提起诉讼
- 7. 其它约定事项:本合同一式2份双方各执1份。自双方授权代表签字或盖章后生效。合同传真件有效。

供货方帐号信息: 公司 4 称 一 烟 4 乾 洁 由 子 利 枯 车 咽 4 司	开户行:烟台银行福山路支行
公司名称: 烟台乾沣电子科技有限公司	开户行:烟台银行福山路支行 收号:5350160012010000166
彩购方:山东大学	供货力: 烟台乾 早子科 按有限公司
授权代表:	授权代表的
签署日期:	签署日期: 2015.11.19



Kolga, LLC

sale

Quotation

Kolga, LLCC 65 Lancaster Drive Beacon Falls, CT 06403 Tel: 203-729-6800 x12				Date: Quote #: Customer ID:	August 12, 2019 19-0648_v01 Jefferson Labs
sales@kolgashield.c	<u>om</u>				
Ship/Bill To:	Dr. Xiaochao Zheng	Сору	Dr. Xiaochao Zh	eng	
	Department of Physics, University of Virginia		Department of F	hysics, University of	Virginia
	382 McCormick Rd		382 McCormick	Rd	
	Charlottesville, VA 22904		Charlottesville,	VA 22904	
	phone: : (434) 243-4032		phone: : (434) 2	43-4032	
	email: xiaochao@jlab.org		email: xiaochac	@jlab.org	

Contact	Job	Shipping Method	Shipping Terms	Delivery Date	Payment Terms	Quote Valid For
MAC	Jefferson Labs	TBD	EXW	8 weeks ARO	See below	30 Days

ltem	Qty	Model #	Description	Unit Price	Additional Item	Line Total
1	18	Pure Lead Sheets to 11.2 mm thickness	Pure Lead Sheets 1 sq. meter each dimensions 1m x 1m x 11.2 mm approximate weight 127 kg each	\$996.00		\$17,928.00
		pping to be determine	d		Subtotal	\$17,928.00
Full pa	yment on	shipment				

Total \$17,928.00

Thank you for your business!

Kolga,LLC 65 Lancaster Drive, Beacon Falls, CT 06403 USA tel +1 203-729-6800 www.kolgashield.com

xiaochao@jlab.org

Quote# H17-041A Re: Request for updated quotes for JLab SOLID project (LASPD, FASPD, lightguides)

From : Chuck Hurlbut <churlbut@eljentechnology.com> Fri, Mar 10, 2017 05:51 PM

- Subject : Quote# H17-041A Re: Request for updated quotes for JLab SOLID project (LASPD, FASPD, lightguides)
 - To:Xiaochao Zheng <xiaochao@jlab.org>
 - Cc : Chris Maxwell <cmaxwell@eljentechnology.com>, James Cleckler <jcleckler@eljentechnology.com>

Hi Xiaochao,

Please accept my apologies for taking so long with this. The information you sent references the original quotations was very helpful. I was able to go over them in detail and to understand the approach to the project that Stephanie Wiele used and also some of the good advice she had received from our manufacturing folks regarding the most efficient manufacturing methods.

Please see the following offer with the updated prices. One other thing. The FASPD scintillators with the fiber grooves, have the same costs for the 5mm and 6mm thick tiles.

Quotation No. H7-041A [ITEM 1] LASPD SCINTILLATORS, 60 pieces Description: EJ-200 20mm thick cast scintillator Trapezoidal shaped tiles with faces clear as-cast and edges diamond-milled. Dimensions: Length: 57.0cm with a 6.0degre included angle Minor width: 8.30cm Major width: 14.0cm Unit price: \$ 228.00

[ITEM 2] Light Guide for the LASPD Scintillators, 60 pieces
 Light guide fabricated in accord with Eljen concept drawing entitled Light Guide 5, concept Drawing, dated 27-Oct-2014
 Light guide intended to mount to the large end of the LASPD scintillators.
 Unit price: \$ 396.00

[ITEM 3] FASPD Trapezoidal Scintillator Tiles with fiber grooves, 4 sizes, 60 pieces of each size
Two thickness are offered: 5.0mm and 6.0mm
The groove depth in the 5mm thick tiles would be 3mm.
The included trapezoidal angle for all tiles: 6.00 degrees
The groove depth in the 6mm thick tiles would be 3.5 or 3.6mm, if possible. This is the limit of tooling available.
(ITEM 3.1) Tile #1, the innermost tile
Length: 23.20 cm
Minor Width: 9.80 cm

Major Width: 12.12 cm Unit price: \$ 190.00

(ITEM 3.2) Tile #2, the second tile from the center Length: 28.80 cm Minor Width: 12.12 cm Major Width: 15.00 cm Unit price: \$ 213.00

(ITEM 3.3) Tile #3, the third tile from the center Length: 35.60 cm Minor Width: 15.00 cm Major Width: 18.56 cm Unit price: \$ 251.00

(ITEM 3.4) Tile #4, the outermost tile Length: 44.40 cm Minor Width: 18.56 cm Major Width: 23.00 cm Unit price: \$ 323.00

I think this covers all the items you requested. As usual, please do not hesitate to write with your concerns.

Best regards.....Chuck

Charles Hurlbut General Manager

Eljen Technology 1300 W. Broadway Sweetwater TX 79556

Ph: 325-235-4276 ext 2005

Toll Free: 888-800-8771 ext 2005 Fax: 325-235-0701

Visit our website: <u>www.eljentechnology.com</u>

On 3/2/2017 9:29 AM, Xiaochao Zheng wrote:

Dear Chuck:

Have you got a chance to look into this quote request? I'd like to know the updated cost within the week, if possible.

And if you can't get the exact numbers, whether the quote will have significant change since October 2014, where the LASPD was quoted \$212/piece * 60 pieces, light guide at \$366/piece * 60 pieces, FASPD - 4 sizes - at \$177 \$200 \$235 \$303 per piece for 60 pieces each size, etc. THe FASPD was quoted for 5mm thick with 3mm grooves, and the new request is for 6mm thick with 4.5 to 5mm grooves.

Thanks,

Xiaochao

----- Original Message -----From: "churlbut" <<u>churlbut@eljentechnology.com></u> To: "Xiaochao Zheng" <<u>xiaochao@jlab.org></u> Sent: Thursday, February 16, 2017 11:00:37 AM Subject: Re: Request for updated quotes for JLab SOLID project (LASPD, FASPD, lightguides)

Dear Yiaochao,

Thanks for your message and the three drawings. I have visitors today & tomorrow. Hope to get back to you next week with some numbers.

Best regards.....Chuck

Charles Hurlbut General Manager

Eljen Technology 1300 W. Broadway Sweetwater TX 79556

Ph: 325-235-4276 ext 2005 Toll Free: 888-800-8771 ext 2005 Fax: 325-235-0701

Visit our website: www.eljentechnology.com

On 2/13/2017 1:42 PM, Xiaochao Zheng wrote:

Dear Chuck:

Back in 2014 I requested a few quotes from Eljen. These are part of a large project called "SOLID" at Jefferson Lab (SOLID=Solenoid Large Intensity Device). Because it is a large project, we are still in the planning stage and we are in the process of submitting an updated funding request to DOE.

For the planning/budgeting purpose, I'd like to request an update on the quotes. I believe these were handled by Stephanie Wiele in October-November 2014, for the following three items:

1) LASPD detectors, 60 pieces:

EJ-200, 20mm thick, no groove, see file LASPD_sketch_cropped.pdf for the size requirement

2014 quotation: \$212 for quantity of 60 or \$403 for quantity of 3 (prototyping)

2) light guides for LASPD, 60 pieces, see file JLab Fish LG 20x140x39Dmm 55deg-3.pdf for the conceptual drawing. I believe this is what we used in 2014.

2014 quotation: \$366 for quantity of (60-70) or \$732 for 1 (prototyping)

3) FASPD detectors, 4 sizes, 60 pieces per size.

See attached file FASPD_sketch_4radial_cropped.pdf for size. These are thin scintillators with grooves on the surface. The blue curves in the sketch shows roughly how we'd like the grooves to be like, but Stephanie modified the groove design in 2014 and we ordered one prototype for that size. I have attached her sketch.

For FASPD, in 2014 I requested a quote for 5mm thick with 3mm-deep grooves. Here I'd like to have two sets of quotes:

5mm thick EJ-200 with 3mm-deep grooves; 6mm thick EJ-200 with 4.5mm-deep grooves (or as deep as the machining allows).

Therefore, for 3 it will contain 8 items (4 sizes of scintllators, two different thickness/groove depth each).

2014 quotation for 5mm thick: \$177, \$200, \$235, \$303, respectively for the 4 sizes, for quantity of 60 each.

Please let me know if this request is clear. Tracing my emails I found previous quotation numbered W14-359B and W15-026A, though I am not sure if this information can be of any help.

Thanks,

Xiaochao



Company Information

Acct #: 00542 Name: Jefferson Lab. / TJNAF Attn: Xiaochao Zheng **Department of Physics** 382 McCormick Rd Charlottesville, VA 22904

Offer Date: January 01, 0001 Offer Number: Revision: 3 **Expiration Date:** Payment Terms: Net 30 Days Shipping Terms: FOB Origin Customer Ref #:

Country Of Origin: USA

QUO-45191-J7C4G2

Email: xiaochao@jlab.org

Phone: (434) 243-4032

In response to your request, we are pleased to offer the following:

Customer Notes: ITEM QTY U/M DESCRIPTION PART NO. UNIT PRICE TOTAL PRICE 1 19200 BCF91A MC, 1.00 DIA, R/C BCF91AM-\$1.91 \$366,720.00 D1.00N 0 Fiber type: BCF91A Cladding: Multi-clad Shape: Round Diameter: 1 mm End Finish: Rough-cut EMA Coating: None Packaging : Cane No. of canes: 6800 Length per Cane: 1.00 meters *Estimated Lead Time: TBD 2 52000 BCF98 SC, 1.00 DIA, R/C BCF98S-\$1.33 \$691.600.00 0 D1.00N Fiber type: BCF98 Cladding: Single-clad Shape: Round Diameter: 1 mm End Finish: Rough-cut EMA Coating: None Packaging : Cane No. of canes: 520000 Length per Cane: 1.00 meters *Estimated Lead Time: TBD BCF98 MC, 1.00 DIA, R/C BCF98MC-3 52000 \$1.67 \$868,400.00 D1.00N 0 Fiber type BCF98 Cladding: Multi-clad Shape: Round Diameter: 1 mm End Finish: Rough-cut EMA Coating: None Packaging: Cane No of canes: 520000 Length per Cane: 1.00 meters Estimated Lead Time: TBD

> Saint-Gobain Crystals 17900 Great Lakes Parkway Hiram, OH 44234 USA Saint-Gobain Ceramics & Plastics, Inc.



*Lead times are based on our current workloads. A firm delivery date will be provided at the time of order. Minimum Order Value Charge will be applied for all orders less than €1000 (or 1000 USD for orders processed in USD).

Please reference offer number (QUO) shown above when placing an order.

By:

Amy Snyder Senior Customer Service Representative Tel: +1 (440) 834-5696 Email: amy.snyder@saint-gobain.com CC:

Any sale made pursuant to this offer will be governed by Saint-Gobain Crystals standard terms and conditions of sale. Your acceptance of this offer is conditioned upon written verification to the satisfaction of Saint-Gobain Crystals of your credit worthiness. Please see terms and conditions at https://www.crystals.saint-gobain.com/legal/Conditions-Sales

Country of ultimate destination, ultimate end-user and ultimate end-use required prior to placing order.

Note: Saint-Gobain Crystals products are of a highly complex nature. Our commitment under any product sale based on this offer or any further correspondence in this regard shall therefore be limited to the delivery of products complying with the functional specifications expressly mentioned in this Formal Offer and/or contained in written documents (e.g. Technical Instructions) provided by us. Any other functional specification not expressly mentioned in these documents cannot be warranted, even if inherent and measured in samples provided by us.

Saint-Gobain Crystals 17900 Great Lakes Parkway Hiram, OH 44234 USA Saint-Gobain Ceramics & Plastics, Inc.



KURARAY AMERICA, INC. 2625 Bay Area Blvd., Suite 600 Houston, TX 77058 Phone: 281-283-1777

TO: Xiaochao Zheng Jefferson Lab Tel: 434-243-4032 <u>xiaochao@ilab.org</u> Date 3/6/2017 Quotation # JLAB-030617

QUOTATION (Valid for 30 Days)

Product Description	Quantity (m)	U Price	Total
Y-11(200)M, 1.0mmD., 6,800m, BJ	6,800	\$4.67	\$31,756.00
Wavelength shifting, multiclad, 1.0mm diameter, 6800m, spo	oled		
(price is based on current currency)			
Total			\$31,756.00

Delivery Schedule: Approximately 3-4 months after receipt of order

Terms FCA Japan

Other Remarks:

Thank you very much for your interest in our products. If you have any question, please do not hesitate to contact me.

Best Regards, Sean Cuevas Kuraray America

Fujikura America, Inc. / DDK Connector Division

Your World Wide Leader in Interconnect Technology

3150-A Coronado Drive Santa Clara, CA 95054					8) 748-6991 8) 727-3415
	To:	Xiaochao Zheng Department of Physics, Univ 382 McCormick Road Charlottesville, VA 22904 Phone: 434-243-4032 E-mail: <u>Xiaochao@jlab.org</u>		cc:	Rowena Cacacho – FAI/DDK EMA
	From:	Terry L. Dattilio			
	Subject:	Quote – CD#13498	"CD# must be referenced on all applic	cable purc	hase orders"
	Date:	February 27, 2015			

Fujikura America, Inc. / DDK Connector Division is pleased to submit the following quotation:

DDK Part Numbe	r Purchase Order Quantity	Unit Price
MCP-10P-3	200 (MOQ) – 999	\$4.32
	1,000 – 4,999	\$3.78
	5,000+	\$3.38
MCP-10A	100 (MOQ) – 999	\$3.36
	1,000 - 4,999	\$2.94
	5,000+	\$2.63
Cl. ' 1. 4		

Ship lots:Minimum ship lot is MOQ per part numberMaximum of four (4) ship lots per part number

All shipments must be complete within one (1) year of original purchase order date.

Delivery: 10 – 12 week ARO Quotation is valid through December 31, 2015 FOB: Santa Clara, CA Terms are net 30 days.

Non-cancelable, non-returnable

This quotation is subject to review by the Fujikura America, Inc. / DDK Connector Division after 30 days of issue date.

Note:

The standard method of shipment is UPS Ground unless mutually agreed upon by the customer and Fujikura America Inc. / DDK Connector Division.

All purchase orders are subject to credit approval before acceptance by FAI / DDK

All customer purchase orders are to be sent to Rowena Cacacho via e-mail rowena@fujikura.com or by fax (408) 727-3415.

Thank you for the opportunity to quote your connector requirements.

Sincerely,

Terry L. Dattilio

Terry L. Dattilio Industrial Product Sales Manager Fujikura America, Inc. / DDK Connector Division Phone: 330-425-1816 E-mail: terry@fujikura.com

RE: updated quote for SoLID ECal/SPD

Ardavan Ghassemi <AGhassemi@hamamatsu.com> Thu 2/16/2017 5:04 PM To: Xiaochao Zheng <xiaochao@jlab.org> Dear Xiaochao,

Great to hear from you! Please find budgetary unit price estimates for those PMT options and quantities below:

1A. 1900 units of R11102: \$155

1B. 1900 units of R11102 with mu-metal shield: \$170

2. 125 units of R11265-100-M16: \$970

3. 64 units of R5924-70: \$2900

4. 64 units of H6614-70: \$3290

As noted above, only R11102 is available with mu-metal shield.

I hope you find the above pricing info satisfactory. Please feel free to let me know if I can help you with anything else.

Best Regards, Ardavan

-----Original Message-----From: Xiaochao Zheng [<u>mailto:xiaochao@jlab.org</u>] Sent: Monday, February 13, 2017 3:38 PM To: Ardavan Ghassemi Cc: Xiaochao Zheng Subject: updated quote for SoLID ECal/SPD

Dear Ardavan:

We are working on an updated budget for the SoLID project. Can you please provide an up-to-date quote for the following items:

1) R11102 (Shower readout) - quantity 1800 plus 5% extra - total ~1900;

2) R11265-100-M16 (preshower and FASPD readout) - quantity 135 PMTs (extra already included);

3) FMPMT H6614-70/R5924-70 assembly, quantity 64 (extra already included).

Also, if any of these come with the option of mu-metal shielding, please provide quotes for both with and without the shielding.

We would like to have the final numbers within the next two weeks. Of course, the earlier we can have the update, the better.

Thanks!

Xiaochao

Associate Professor, Department of Physics, University of Virginia 382 McCormick Rd, Charlottesville, VA 22904 Telephone: (434) 243-4032 (during academic year); or (757) 810-2885 (summer) Homepage: <u>http://people.virginia.edu/~xz5y/Main.html</u>