SOLE SOURCE CERTIFICATION

Under the requirement of University of Florida Rule No. 6C1-3.020(5)(f)(2), the following is submitted in support of this request for authority to purchase, without bidding, the items available from only one source.

A. Sole Source Vendor Company Name: BlueFors Cryogenics Oy Ltd.
   Contact Person: Raphael Khan
   Address: Aatinatie 10 00370 Helsinki, FINLAND
   Telephone: +358-9-56174800 Fax: +358-9-3867335 Email: raphael.khan@bluefors.com

B. Describe in lay language, what the item/service is and how it is to be used in your area of research. (cont. P2)
   The equipment is a cryogenic-free dilution refrigerator. Such a system can be used to cool and measure nano-circuits at temperatures below 100 mK in a fully closed loop, without requiring bi-weekly liquid helium transfers. This system will be the basis of the vast majority of the scientific work I will be performing at the University of Florida. Indeed, my research program involves electrically measuring nano-devices at ultra-low-temperatures.

C. What feature or special condition of this commodity/service is unique and cannot be obtained from any other source? (cont. P2)
   BlueFors Cryogenics provides systems that reach <10 mK temperatures with sub 10 picoFarad exchange, thus crucial requirements for my needs. In addition, they require a 3-axis vector magnet (1.1T/3T as maximal fields along each axis) with a magnetic field resolution greater than 1 micro Tesla, which is provided by BlueFors Cryogenics as well. Only a few companies worldwide provide cryo-free dilution refrigerators and only BlueFors offers these three features simultaneously. Sub 10 mK temperatures are required to reach the high states of nano-devices and to limit thermal excitations. Fast sample exchange enables a quick turn-around to test nano-devices, which can often times only be realized at milliKelvin temperatures. Due to lab space restrictions, a bottom loading fast sample exchange (as opposed to a top loading one) is also required. Finally, a sub 10 micro Tesla resolution in magnetic field, is essential to flux-tune small SQUIDs at finite applied magnetic field.

D. Is this product being purchased directly from the manufacturer? [ ] Yes [ ] No
   If No, is it available from more than one dealer?
   If Yes, is it available from more than one dealer, why can this item not be bid? (cont. P2)

E. Prior to submitting this requisition, did you investigate other possible sources? [ ] Yes [ ] No
   If Yes: 1) Did you obtain quotes from the other sources? [ ] Yes [ ] No If Yes, attach copies.
   2) Is this Vendor's price lower than the other sources? [ ] Yes [ ] No If No, justify the additional cost below.

F. Other Sole Source comments or explanations. (cont. P2)
   BlueFors Cryogenics has a reputation for delivering their dilution refrigerator systems within specifications and on time, as well as offering outstanding technical support. Both of these aspects are crucial for timely and continuous good running of my experiments.

I, the undersigned, certify the above to be true and correct to the best of my / our knowledge and belief and the user and / or undersigned does not have a financial interest in the above named vendor.

DEPARTMENT APPROVAL

I hereby certify the validity of the information and feel confident the Sole Source Certification will meet University criteria and would withstand any audit or vendor protest.

[Signature]
Principal Investigator's Signature
2/15/2023
Date

PURCHASING APPROVAL

This approval is acquired as a non-competitive purchase.

[Signature]
Purchasing Coordinator Signature
8/20/18
Date

[Signature]
Purchasing Authorized Signature
8/28/18
Date

FA-PDS-SOLSRC 02/2009

Cert.
Jeffrey Hendel

Digitally signed by Cert. Posted
Jeffrey Hendel
Date: 2018.08.28
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