Tender Notification for the procurement of a pulse tube based cryofree dilution refrigerator (Last Date for submission of tenders: **20th February 2017**)

REF: PPH/PSA/41/2016-17

Kindly send your best quotation for the following item on C.I.P. Bangalore basis. Your quotation should clearly indicate the terms of delivery, delivery schedule, E.D., payment terms etc. The tender should be submitted in two separate sealed envelopes - one containing the technical bid and the other containing the commercial bid, both of which should reach us, duly signed on or before 1700 hours 20th February 2017.

Please enclose a compliance certificate along with the technical bid.

Yours Sincerely, Chairman Department of Physics

Specifications of the product – Cryofree dilution refrigerator system with the following components and minimum specification:

- 1. Cryofree dilution refrigerator system with cooling power of at least 450 μWatt at 100 milliKelvin and guarantied base temperature less than 10 mK.
- 2. He3/He4 mixture.
- 3. Vector field magnet with at least 9 T vertical/axial (z) and at least 1 T (x) x 1T (y) in-plane/horizontal field along with magnet power supply and relevant accessories.
- 4. SIX UT85 SS-SS to sample stage with SMA connectors (for operation at least up to 18 GHz). It is preferable if TWO among these six can have operation range up to 40 GHz.
- 5. TWO UT85 SS-SS to 4K and NbTi-NbTi to sample stage with SMA (frequency range 18 GHz).
- 6. THIRTY-SIX flexible coax cables with SSMC termination (please include mating connectors) and SMA at room temperature.
- 7. FOUR multimode optical fibre. The optical fibre should be polarization maintaining. It is preferable that ONE out of the four has transmission window in the mid-IR range.
- 8. Bottom loading sample exchange mechanism.
- 9. Preferably FOUR blank ports for future experimental access.
- 10. OVC pumping station with turbo pump and rotary-vane backing pump.
- 11. Floor mounted support stand.
- 12. Preventive maintenance contract 3 years.

Terms and conditions:

- 1. The vendor should have a track record of having previously supplied at least THREE similar equipment in India / USA / UK (please furnish the contact details of the customers).
- 2. The vendor should have qualified technical service personnel for the equipment based in India (preferably in Bangalore).
- 3. The quotation will be in foreign currency.
- 4. The payment will be through confirmed irrevocable Letter of Credit.
- 5. Alternate modes of payment can be suggested with suitable justification.
- 6. Basic tool kit for installation of the pulse tube system should be provided free cost.
- 7. The lead time for the delivery of the equipment should not be more than four months from the date of receipt of our purchase order.
- 8. The instrument must carry a comprehensive warranty of 3 years from the date of installation, or 3.5 years from day of receipt by the vendor, whichever one is earlier.

Yours sincerely, Prof. Arindam Ghosh Associate Professor Department of Physics Indian Institute of Science Bangalore - 560012, India