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Date: 27/08/2013

Enquiry no.: PHY/MODERN PHYSICS LAB/2013-14/EQP/1

Enquiry date: 27.08.2013

Closing date: 10.09.2013

Sealed quotations should reach the undersigned latest by 4.00 pm on 10th September, 2013 for the following items:

1. **Optical Pumping Experiment with all the accessories - 01 Nos.**

Technical Specification:

- **Absorption Cell:** Natural Rb with 30 Torr Neon (along with some deferent absorption cell compatible to the experiment)
- **Lamp:** RF Discharge of Isotopically Enriched Rb (63% Rb^{87})
- **Oven:** PID Controller, Range; Ambient – 100 °C, Res. 0.1°C, Reg. 0.05 °C/hr
- **Optics:** 50 mm Diameter, Interference Filter, 2 Linear Polarizers and λ/4 Wave Plate in 360° Rotation Mounts, 2 Plano-Convex Lenses, f = 50 mm
- **Photodiode Detector:** Low-noise Current-to-Voltage Preamplifier, Bandwidth 0.1 Hz - 1 kHz, Noise: 20 μ V_{p-p} with R_{gain} = 1 M Ohm
- **Magnetic Field of Precision Helmholtz Coils:** Vertical: 0 – 1.4 x 10^{-4} T, Stability, 2 x 10^{-7} T/hr, Horizontal: 8 x 10^{-4} T (internal supply) 22 x 10^{-4} T (external supply), Stability: 4 x 10^{-7} T/hr, Homogeneity > 2 x 10^{-4} over cell, Horizontal Sweep: 0 – 10^{-4} T, Time 1, 2, 5 . . . 1,000s, Stability 2 x 10^{-7} T/hr, External Modulation Input
- **RF Amplifier:** 10 kHz – 100 MHz, Input Impedance = 50 Ohms, Output 150 mW, 100 mA Max.
- **Detector Amplifier:** Amplifier: Gain, 1, 2, 5,. . . 1000, Low-Pass, 12 db/oct, Time Constants, 1ms, 10 ms . . . 3s.
- **RF Signal Generator:** 100 kHz – 20 MHz

Terms and conditions:

- Additional accessories required should be mentioned and quoted separately.
- Quotations should have a validity of a minimum of 60 days.
- All the equipment should be provided with a replacement warranty of 1 year.
- Maximum possible educational discount should be specified on the quotation since all are for teaching purposes.
- Quotations are required in a sealed envelope with enquiry number mentioned on the envelope.
- The delivery period should be within 60 days of placing the purchase order.