

**INDIAN INSTITUTE OF TECHNOLOGY KANPUR  
DEPARTMENT OF MECHANICAL ENGINEERING**

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Sub: Quotations for tunable Argon ion laser.

Dear Sir/Madam:

Sealed Quotations with all technical specifications are invited for the purchase of a tunable Argon ion laser with following specifications;

- 1) Active gas: Argon
- 2) Wavelengths: **457nm** / 476nm / **488nm** / 496nm / **514 nm** (Numbers in bold are must)
- 3) Polarization: Linear (vertical $85^\circ$ ) with  $>100:1$  extinction ratio
- 4) Beam diameter ( $1/e^2$ ): 1.10 ( $\pm 0.5\%$ ) mm
- 5) Beam divergence ( $1/e^2$ ): 1.0 mrad
- 6) Coherence Length:  $\sim 10$  m or better with air space **etalon**
- 7) Pointing Stability :  $<30$  urad
- 8) Operating Temperature:  $5^\circ\text{C}$  to  $40^\circ\text{C}$
- 9) Operating Humidity: 0% to 90%
- 10) Output power: at least 50mW for individual wavelength
- 11) Multiline Output power (Maximum): 300mW
- 12) Electrical service requirements: 220VAC, 30A, 50Hz, single phase
- 13) Input voltage range: 190-235Volts
- 14) Beam expander with 1mm spatial filter unit: 80-100mm
- 15) Cooling: Forced air or as appropriate
- 16) Goggles: Two goggles compatible to the provided wavelength and power of the laser

(Tip: Our group work is totally based on interferometry techniques. So, more emphasis will be given to the laser with extra coherence length and properly designed air space etalon)

The quotation should reach to Mr. Manoj Sharma, Mechanical Engineering Department, I.I.T. Kanpur, Kanpur, (UP) India-208016 before 26 November-2012.

Thank you.

(Prof. K. Muralidhar)