DEPARTMENT OF PHYSICS
INDIAN INSTITUTE OF TECHNOLOGY DELHI
HAUZ KHAS, NEW DELHI-110016 (INDIA)

DATE: 05-12-2014

NOTICE INVITING QUOTATION

Ref. No. IITD/PHYS/MRS/OPO/RP02526 **Due Date: 19-12-2014**

The Physics Department proposes to buy the following components to set up a KTA based tunable nanosecond OPO (Optical Parametric Oscillator). It is planned to use a Q-switched Nd:YAG laser (~10 ns pulses, Peak intensity ≈ 400 MW/cm^2 PRR ~ 1-10 Hz) as the pump, in the configuration shown in Fig. 1.

ITEMS AND SPECIFICATIONS

i. MIRROR M_1

- Quantity: 1
- ROC=100 cm
- Material: BK7/SiO_2
- Diameter: 25mm
- (a) Coating on surface 1: R> 99% in the wavelength range 1.5-2.0 μm
  (b) Coating on surface 2: Not required

ii. MIRROR M_2 , M_3 - Identical Plane Mirrors (with high damage threshold)

- Quantity: 2
- Material: ZnSe
- Diameter: 25mm
- (a) Coating on surface 1: R > 95% for 1.064 μm at 45^o angle with the incident beam.
  T > 95% for 1.5-3.6 μm wavelength
  (b) Coating on surface 2: T>95% for 1.5-3.6 μm wavelength

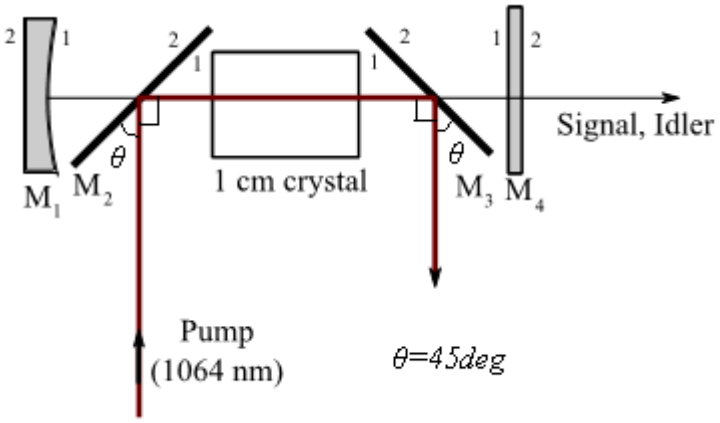

Fig 1: Experimental setup of the SRO

iii. MIRROR M_4 - Plane Mirror

- Quantity: 2
- Material: ZnSe
- Diameter: 25mm
- (a) Coating on surface 1: R ≈ 90 % for 1.5-2.0 μm wavelength
  HT for 2.2-3.6 μm wavelength
  (b) Coating on surface 2: HT for 2.2-3.6 μm wavelength

iv. Isolator

- Quantity: 1
- Aperture: ≥ 4mm
- Operating wavelength: 1064 nm
- Transmission: > 90%
- Isolation: ≥ 35 dB

v. Polarizer

- Quantity: 2
- Extinction ratio: 1000:1 or better.
- Operating wavelength: 1064 nm
- Damage threshold: ≥ 5 J/cm^2 , 10 ns, 10 Hz
- Diameter = 25.4 mm (1")

vi. λ/2 Plate

- Quantity: 2
- Coating: Both sides AR coated @ 1064nm, R< 0.3%
- Operating wavelength: 1064 nm
- Damage threshold: ≥ 5 J/cm^2 , 10 ns, 10 Hz
- Diameter = 25.4 mm (1")

vii. Ge Filter/ Window

- Quantity: 1
- Transmission Range: 2- 4 μm, at least
- Coating: Both sides AR coated for 2-4 μm wavelength range; R < 2%
- Diameter = 25.4 mm (1")

viii. Aspheric Lens

- Quantity: 2
- Transmission Range: 600-1050 nm
- Coating:Both sides AR coated for 600-1050nm wavelength range; R<2%
- Numerical Aperture: 0.15
- Focal length: 5mm(approx.)
- Outer Diameter = 6mm(approx.)

TERMS AND CONDITIONS COVERING SUBMISSION OF QUOTATIONS

1. PRICING: Please quote the rates for **F.O.B.** price.

2. DISCOUNT/REBATES: Special discount/rebate wherever admissible, keeping in view that the supply is being provided for educational purpose in respect of public institution of national importance, may please be indicated.

3. TERMS OF PAYMENT: Payment against delivery (Wire Transfer net 30 days after receipt of item).

4. VALIDITY OF QUOTATIONS: Quotations should be valid at least for a period of 60 days.

5. DEALERSHIP CERTIFICATE: Letter from manufacturer to be attached for authenticity of dealership/agency. Quotations without authorized dealership certificate will be rejected.

6. COMPLIANCE STATEMENT: Please include a statement of compliance of all the above specifications.

7. **INSTITUTE'S RIGHTS:** IIT Delhi reserves the rights of acceptance or rejection of any or all quotations.

9. SUBMISSION OF QUOTATIONS: Quotations should be sent in a sealed cover with our **N.I.Q.** reference No. & Due Date marked at the top. Quotations may please be sent to:

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