

Tender Specifications for an Excimer laser

We would like to buy an Excimer laser with the following technical specifications.

Technical Specifications:

- Energy : =200 mJ/Pulse @ 193 nm
: =400 mJ/Pulse @ 248 nm
- : =200 mJ/Pulse @ 351 nm
- Pulse Rep. Rate : 20Hz
- Average Power : 4 W @ 193 nm
: 7 W @ 248 nm
- : 4 W @ 351 nm
- Pulse to pulse Stability : 1%
- Pulse Duration : ~20ns
- Beam Dimensions : ~25x 10mm²
- Beam Divergence : ~3x1 mrad²
- Electrical requirement : 230V ± 10%, 50Hz (Preferably Single phase)
- Cooling : Air-cooling
- Laser Tube : Metal ceramic technology
- Gas life time : > 20 million shots from one fill @ KrF gas mixture

The laser should have

1. An inbuilt energy monitor with output stabilization.
2. Smooth ceramic pre-ionization for pulse to pulse stability.
3. Internal gas purification system for extended gas life time and tube windows.
4. Metal ceramic tube technology.
5. Magnetic assist protection for extended thyatron life time.
6. An external electrical trigger facility with TTL pulse and synchronous output in internal trigger operations.
7. Necessary vacuum pump (oil free) and halogen gas filters should be integrated inside the system.
8. The laser system should be controlled through a remote control and should have RS 232 interface to control through a windows based computer.
9. Window cleaning Interval should be >100 million shots.
10. Laser tube life should be greater than 1 billion shots.
11. The laser should operate with air-cooling up to 20 Hz.
12. Single phase electrical power supply for the operation of laser is preferred.
13. All gases with the corresponding regulators and fittings required for the operation should be quoted for the proposed system. Only individual gases should be quoted. Supplier should clearly indicate the purity and quantity of each type of gas.
14. A suitable energy meter to measure the energy of the Excimer laser should also be quoted.
15. Two pairs of suitable laser goggles should be supplied
16. All Technical literature /catalogs of various systems should accompany the quotation. All the documents should be in English.
17. Installation and commissioning should be provided by the supplier or its Indian agent. The Indian agent should have well proven service capability on similar systems and should have factory trained. The vendor/supplier should

- have service engineers for good after sales-support. Additional technical details of the experience of the engineers should be mentioned in the offer.
18. A list of references in India, where similar systems have been installed, must be provided and this will be taken very seriously while making the decision.

Terms & Conditions

Quotations are invited in two bid format (Technical & Price bid) in sealed individual envelopes for the above equipment in the name of

DR. B RAJA KUMAR
ASSOCIATE PROFESSOR
DEPARTMENT OF CHEMISTRY
INDIAN INSTITUTE OF TECHNOLOGY MADRAS
CHENNAI 600036

The last date for the submission is: 21 days from the date of enquiry.
Complete warranty should be at least one year from the date of installation.
The price quoted should be CIP Chennai.
The payment will be done via establishment of LC