DEPARTMENT OF PHYSICS
INDIAN INSTITUTE OF TECHNOLOGY DELHI

HAUZ KHAS NEW DELHI-110 016

NOTICE INVITING QUOTATION

Date: 16.09.2011

Last Date of submission: 03.10.2011, 5.00 p.m.

Quotations are invited in sealed cover for An educational X-Ray unit for the following experimental studies:

Compton scattering of X-rays-determination of Compton wavelength
Characteristic X-rays of respective anode material
Monochromatization of X-rays
Doublet splitting of X-rays/Fine structure
Absorption of X-rays- To determine the absorption coefficients of different materials as a function of wavelength
K & L absorption edges of X-rays- to calculate Rydberg constant and screening constants from the energy of absorption edges
Examination of the structure of monocrystal with different orientations

The set up should be equipped with the following design:

- "Tube change" facility enabling experiments to be carried out with tubes having different anode materials
- Operating and controlling the parameters either manually or with a computer
- With digital displays for displaying control/operating parameters and measured values and integrated rate meter unit
- Goniometer- self calibrating, collision protected and simple handling
- Large experimentation space

The technical bid should contain detailed information on the Basic Unit and all other accessories which will make the above experiments possible. Say, the information should include details about the

- software (plug & play kind)
- anode voltage, emission current
- G M Tube

- Goniometer: step angle,speed,sample pivot range, counter tube pivot range
- Analyzer crystals like LiF/KBr/NaCl etc.
- Absorber materials/filter etc.

Safety considerations

- The setup must have X-radiation protection shield, in the form of lead-reinforced panes
- Electrical & mechanical safety locks

The manufacturer should specify/declare the dosage rate when operating at maximum values

Terms and conditions covering submission of quotations:

1. Price quoted should be on FOB basis
2. Terms of payment:
3. Validity of quotations: Quotations must be considered valid for three months from the date of receipt.
4. Submission of quotations: Quotations should be sent in seperate sealed covers marked at the top **'X-ray set up'** with technical and commercial bids in separate envelops.
5. Delivery period

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