



YOGI VEMANA UNIVERSITY
Vemanapuram, Kadapa – 516 003, A. P, India.
<http://www.yogivemanauniversity.ac.in>

Prof.K.Krishna Reddy, M.Sc., M.Phil., Ph.D., FIETE., FAPAS.,
Professor & Chairman BoS
Head, Department of Physics
Program Coordinator, DST-FIST

Tel:+91-(0)8562-225403
Fax:+91-(0)8562-225419
Cell:+91-(0)99662 20933
e-mail: krishna.kkreddy@gmail.com

No .YVU/PHYS/DST-FIST-1/Equip/XRD/CQ/2014-15/3

10th December, 2014.

Dear Sir,

Sub: Department of Physics, Yogi Vemana University, Kadapa – Supply of **Table Top X-Ray Diffractometer & Accessories** in DST - FIST– Call for Quotations – Reg.

Ref: Proceedings of Registrar No. YVU/DEVP/PC-DST-FIST/Physics/Equipment & Books/Permission/IQ/2014-15, Dt: 11-11-2014.

I am to inform you that **Table Top X-Ray Diffractometer & Accessories** are required to establish research facilities in department of Physics, Yogi Vemana University under DST-FIST program. I therefore request you to kindly send your lowest quotation by registered post in triplicate directly to **The Registrar, Yogi Vemana University, Vemanapuram, Kadapa-516 003, A.P.,** so as to reach on or before **09-01-2015**. The following specifications may be quoted for Table Top X-Ray Diffractometer.

Table Top X-Ray Diffractometer & Accessories

1. X-ray Generator details

- a) Tube load 400-600W capacity and having provision of operating 220-230 V, 50 Hz Single Phase Supply
- b) Tube voltage 40kV Variable
- c) Tube current 15mA Variable
- d) Stability $\pm 0.05\%$ (for a $\pm 10\%$ variation in line voltage)
- e) X-ray shutter rotary shutter linked to Main door
- f) X-ray tube Cu 1.0kW Normal Focus

X-ray tube should be supplied by manufacturer of the XRD supplier or a reputed manufacturer.

2. Goniometer details

- a) Type Vertical
- b) Radius 150mm or more
- c) Scanning method θ - 2θ geometry
- d) Scanning range at least $-3 \sim +145^\circ$ (2Theta)
- e) Scanning speed at least $0.01 \sim 100^\circ/\text{min}$ (2Theta) or better
- f) Minimum step width at least 0.005° (2Theta).
- g) Variable divergence slits, Variable scattering slits and interchangeable soller slits along with receiving slits should be part of the basic system.
- h) Accuracy Better than 0.01° or more.
- i) K-Beta reduction Ni-Filter
- j) Sample Holder Standard Rectangle shape holder

3. X-ray Detector details

- a) Scintillation counter (NaI crystal) detector with clearly specified linearity range, maximum count rate per second. Compatibility with High speed, Hi Resolution Detector within the same Model has to be confirmed.
- b) High Voltage $0 \sim 1000\text{V}$
- c) PHA type Fixed Pulse Height Analyzer type
- d) Scalar 32 bit counter

(Optionally quote for a 1D Detector for fast and high resolution scanning with

