

Technical Specification of TL/OSL dating system

(Automated TL/IRSL/Blue/Violet OSL System)

1. Technical Specification:

- a. Automated 48-position sample changer system built into a vacuum chamber.
 - b. Two exchangeable sample holders (each designed to hold 48 samples) for 9.7 mm diam. flat sample discs or 11.65 mm diam. sample cups.
 - c. Vacuum sensing system with automatic switching on reaching desired pressure, vacuum gauge, and combined vacuum/nitrogen solenoid valves (exclusive vacuum pump).
 - d. Lift mechanism for heater element and Shaped Kanthal heater strip.
 - e. Filter holder to allow fitting of different optical detection filters.
 - f. Photomultiplier housing with dynode chain and u.-metal shielding.
 - g. Electronics, detectors and controls
 - h. Infrared/Blue Light Optically Stimulated Luminescence (OSL) attachment.
 - i. Control and function software.
 - j. Optical filters.
2. $^{90}\text{Sr}/^{90}\text{Y}$ beta source – SIFK type – 1.48 GBq (40 mCi)
 3. Extra heating and lifting module for elevated temperature irradiation
 4. Violet stimulation unit (405 nm) with necessary optical filters
 5. Photon Timer attachment with PTanalyse software for data collection and analysis.
 6. Red PMT detection system with cooling housing and necessary optical filters

TERMS AND CONDITIONS

- 1. Warranty & Maintenance:** The warranty of the equipment should be specified in detail which should indicate period, cost etc. Warranty for the instrument, support sub-systems and the computer systems from the date of satisfactory installation of the instrument. Response should be 'with-in 48 hours' after lodging a warranty call for troubleshooting. Machine down-time during warranty period should be allowed for extended warranty.
Separate quote for annual comprehensive maintenance of the instrument and subsystems including spares parts as and when required for five years post warranty may be given.
- 2. Routine Consumable components for the first three years of operation:** Routine consumable components shall be supplied with the instrument for the first three years of the operation of the instrument.
- 3. Training:** Post-installation, application related training for two personnel at the factory site in operation, maintenance and application, after a period of exposure time on the instrument.
- 4. Accessories:** A comprehensive list of accessories with catalogue/part number and cost should be provided.
- 5. List of Users in India:** A complete list of Indian Users and the systems that are being handled shall be provided with the name and address of the contact person against each user institute.
- 6.** Vendor must have India-based service organization, for which detailed documentation is required, including full disclosure of names, locations, training, and years of experience.
- 7.** Vendor must have local parts stocking, for which documentation is required.
- 8.** Availability of telephone support, including telephone numbers and email addresses, must be detailed.