



lexsygsmart

leading technology meets cost efficiency



lexsygsmart is a low cost luminescence reader for standard routine measurements of luminescence using thermal and optical stimulation (TL, OSL). Based on the experience of the lexsygresearch device, the lexsygsmart offers all routine functions necessary for fast standard luminescence measurements.

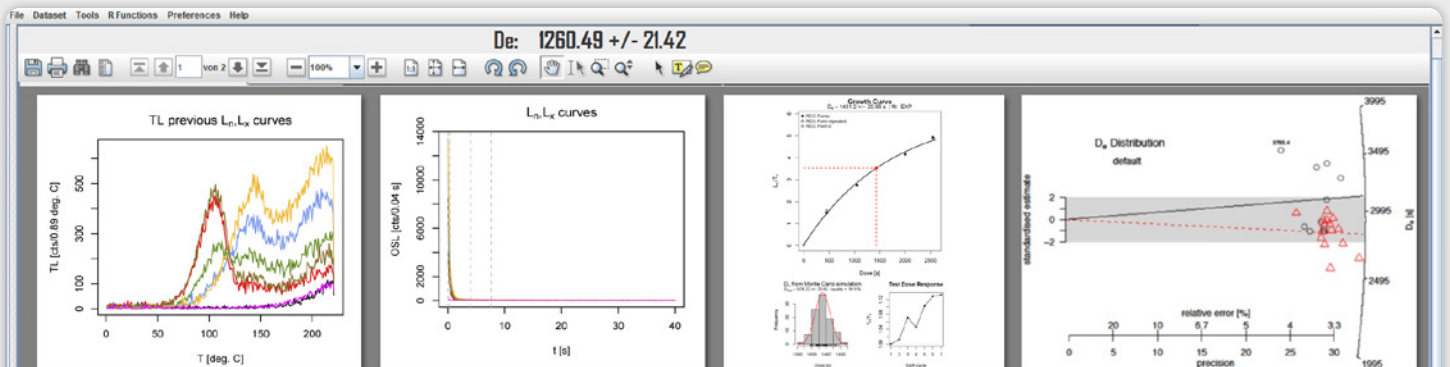
lexsygsmart

lexsygsmart	equivalent dose for dating	dosimetry
	TL-OSL reader	TL-OSL reader
Sample wheel (40 pos.)		optional
Measurement chamber (TL)		
Beta irradiation module		optional
Blue/IR excitation (OSL, IRSL)		
UV-VIS PMT		
Detection filter changer	optional	optional

lexsygsmart is a luminescence reader designed and constructed by Freiberg Instruments in co-operation with luminescence research and dating laboratories. This system is developed for standard TL and OSL measurements in geo-/archaeochronometry, mineralogical research, solid state and retrospective dosimetry, radiation control and material sciences.

Advantages

- small and compact design
- low price
- easy operation
- research capability
- OSL (blue and IRSL)
- TL
- filter wheel (optional)
- beta source (optional)
- low operating costs
- evaluation software LexEva



The software LexEva provides basic analysis functions and a graphical interface for the open source R-package 'Luminescence'.

Facts

Luminescence reader specifications

- for sample carriers of 10 mm diameter
- negligible radiation exposure of stored samples (radiation cross talk)
- easy handling and safe service
- inert-gas purging of small measurement chamber volume of ~10 ml
- dimensions: 30x42x35 cm

40 position sample wheel

- independent operation of chamber and sample-disc reservoir

OSL

- homogeneous blue (458 nm, 100 mW/cm²) und IR (850 nm, 300 mW/cm²) illuminations at sample position (additional wavelengths are available on request)
- continuous wave OSL
- linear modulated OSL

Thermoluminescence up to 500°C

- linear heating and isothermal measurements
- ramping rates between 0.1 K/s and 10 K/s
- heating up to 710°C (available only upon special request)

standard bi-alkaline PMT (300–650 nm)

- quick change module for manual filter change
- 2 filtersets included

optional detection filter changer

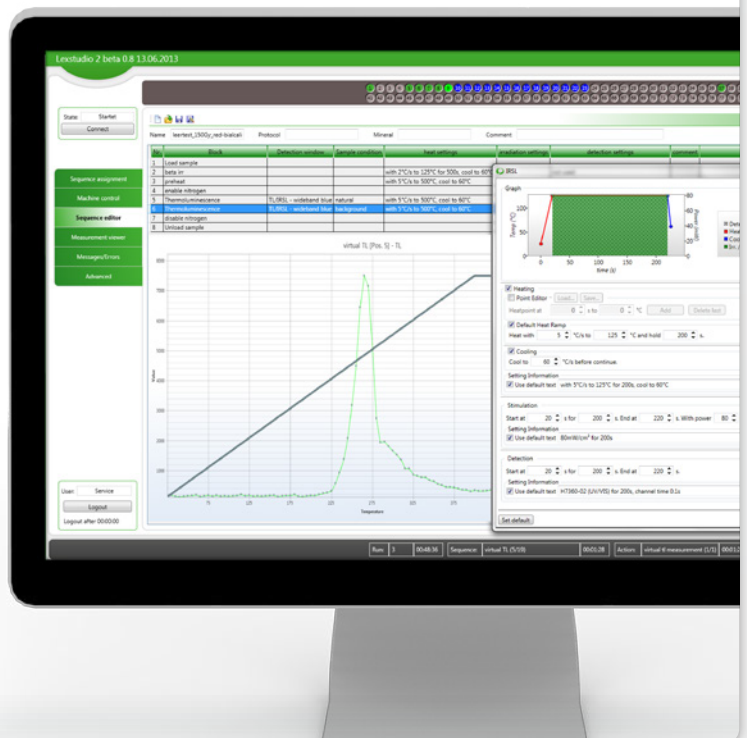
- up to 6 detection windows

optional Beta (Sr-90, < 2 GBq) source

Operating software LexStudio

New graphical user interface combines clear arrangement with usability and provides sequence editing, device control and live view of measurements.

- user account management system
- transparent workflow
- professionally designed user interface
- intelligent parameter selection
- live data visualisation
- easy programming of individual as well as standard measurement sequences
- data acquisition, storage and export (ASCII-, bin-, xsyg-format)
- data acquisition of actual temperature, etc.
- automated background subtraction optional
- storage of calibration values for individual dosimeters and automated processing of results



Contact



Freiberg Instruments Geo Archives

Freiberg Instruments GmbH

Delfter Straße 6
D-09599 Freiberg, Germany
www.lexsyg.com

Phone: +49 3731 419540
Fax: +49 3731 4195414
E-Mail: sales@freiberginstruments.com

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