

temperatures at which the
remained unchanged.

Paper 112

THERMOLUMINESCENT SYSTEM FOR LOW TEMPERATURES

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A system for measurements of thermoluminescence glow curves, thermoluminescence emission spectra and optical absorption spectra of solid samples, from liquid nitrogen temperature up to 320 K, is reported. The system uses two kinds of cryostats, one for thermoluminescence, optical bleaching, phototransfer and emission spectrum experiments and another for optical absorption investigations. The sample holder is heated by means of an electric resistance. A specially designed temperature programmer provides linear heating of the sample and uses a platinum resistance temperature detector as temperature monitor. The instrument is provided with a digital display where the sample temperature can be read in °C. Glow curves are recorded in a graphic recorder. TLD-100 thermoluminescence glow curves, emission spectrum and optical absorption spectrum obtained with the system are presented.