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## DETERMINATION OF NATURAL CALCIUM FLUORITE TRAP DEPTHS

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Natural calcium fluorite crystal generally has four thermoluminescence (TL) glow peaks around 100°C, 120°C, 190°C and 300°C for a irradiated sample. In this study, the trap depths of natural calcium fluorite sample for 190°C and 300°C TL peaks were determined. In order to determine trap depths computerized glow curve deconvolution (CGCD), various heating rate (VHR) and peak shape (PS) method were used. All TL measurements were carried out on three aliquots of 20±0.10 mg samples by using a Harshaw QS 3500 manual type reader that was interfaced to a PC where the signals were stored and analyzed. Sample was irradiated at room temperature using the  $\beta$  source from a calibrated  $^{90}\text{Sr}/^{90}\text{Y}$   $\beta$  ( $\approx 0.04$  Gy/s). TL glow curves were recorded up to 400°C at a constant heating rate of 1°C/s.

**Key words:** Trap depth, thermoluminescence, calcium fluorite, CGCD, VHR, PS.

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