



2015

LUMIDOZ 9: THE 9TH  
INTERNATIONAL CONFERENCE on  
LUMINESCENCE and ESR  
DOSIMETRY



NUBA - Akdeniz University

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# *Book of Abstracts*

## **LUMIDOZ 9: THE 9<sup>TH</sup> INTERNATIONAL CONFERENCE on LUMINESCENCE and ESR DOSIMETRY**

2-4 September 2015

**NUBA - AKDENIZ UNIVERSITY**

**ANTALYA / TURKEY**

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Dr. Virgilio Correcher DELGADO

Dr. Shin TOYODA

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## Investigation of Thermoluminescence Glow Peaks of Natural Apatite Crystal

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In this study, the heating rate effect on thermoluminescence (TL) glow peaks of natural apatite was investigated. The natural samples of altered granodiorites, which are good candidates of high apatite mineral concentrations, were collected from the Dođanşehir granitoidin Dođanşehir-Malatyaregion and then the conventional mineral separation procedures including jaw crusher, wet sieving, magnetic separator and heavy liquid separation were used for the separation of the apatite minerals. The TL glow curves of apatite minerals were recorded from room temperature to 450°C in a nitrogen atmosphere with different heating rate values and were read without any irradiated sources by using aRisø TL/OSL DA-20 reader. The preliminary results show that the non-irradiated samples have three peaks at around 240, 360 and 470°C, respectively.

**Keywords:** Thermoluminescence, altered granodiorite, separation procedures, apatite, heating rate.