

Referee's report: Paper # 297

Title: Influence of duration of annealing on thermoluminescence of natural quartz annealed 1000oC

The authors set out to evaluate the effect of annealing duration on thermoluminescence properties of natural quartz annealed at 1000°C. Among other things, they evaluated the influence of dose on the peak position; they used both the initial rise and whole glow peak methods to determine the activation energy. They evaluated the material for a possible application in dosimetry and they demonstrated dosimetric features of this material. Their findings are comparable to those reported in the literature cited, suggesting that the standard and quality of their work are good and internationally competitive. Although extensive work on thermoluminescent properties of natural quartz has been published before, what set this work apart from the previous studies, making the findings novel and not just confirmatory, is the synergy between lifetime and the duration of annealing at a fixed temperature of 1000°C. The authors demonstrated that lifetime decreases with annealing time.

The paper is technically well presented, and I envisage a contribution to the existing pool of knowledge in the field of thermoluminescence. All the figures are clear, appropriate, and correctly labelled. I did not notice any factual, numerical or units errors.

Although the paper is technically well presented, it is not free from minor linguistics and typographical errors. I have highlighted such errors in the accompanying pdf copy of the paper, which I expect the authors to address prior to accepting the paper for publication.

Recommendation: Accept with minor editorial revisions.