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## **COMPARATIVE STUDY OF THE TL RESPONSE OF LiF:Mg,Ti AND CaSO<sub>4</sub>:Dy IN THE CLINICAL ELECTRON BEAMS DOSIMETRY APPLIED TO TOTAL SKIN IRRADIATION – TSI TREATMENTS**

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Dose verification in the patient has become an important part of quality radiotherapy programs in the departments. The thermoluminescent dosimeters have become essential for the determination of the dose applied to the patient; these detectors present a great accuracy and precision in the measurements, thus enabling the detection of various types of errors in the dosing process. High energy electron beams (> 5 MeV) have wide use in the medical field mainly in the treatment of various types of cancer, or in the irradiation of all skin - TSI. TSI dosimetry is difficult because of the complexity of the treatment in assessing dose uniformity and measuring the absorbed dose at shallow depths throughout the cutaneous surface area, resulting in wide variation in the dose distribution. TLDs have proven to be very useful for the distribution and verification of the dose prescribed for the patient, since the dose may differ from place to place due to the geometry of the patient's body, overlapping of structures and asymmetries of the radiation field. In this work the results obtained from the comparative study and the performance of the LiF:Mg,Ti and CaSO<sub>4</sub>:Dy detectors used in the clinical electron beams dosimetry applied to total irradiation of the skin treatment are presented. Other factors were analyzed in this study such as the homogeneity of the field and the dose at the calibration point (ZRef), where the detectors were located in the regions anterior, posterior, right anterior oblique, right posterior oblique and right side.

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## **Characterization of Lithium Diborate, Sodium Diborate and Commercial Glass Exposed to Gamma Radiation via Linearity Analyses**

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