

Paper D10

DEVELOPMENT OF HIGHLY SENSITIVE THERMOLUMINESCENT LiF**IPEN-DOC-590.6**

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The Dosimetric Materials Production Laboratory of IPEN has been engaged in a new project to develop highly sensitive LiF dosimetric materials. The project consists of three steps: crystal growth, material characterisation and dosimetric application. For crystal growth a special furnace with a vacuum line system and a system for operation under controlled atmosphere conditions has been designed, using a vitificate carbon crucible. First LiF crystals doped with Mg, Cu, P have been prepared. Combinations of other dopants are being studied. The thermoluminescence sensitivity of the obtained crystals is similar to that of commercially available material.