

**Preparation and investigation of amorphous SnSe₂ thin films
with potential switching applications**

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Abstract

Thin amorphous films of tin selenide have been prepared by pulsed laser deposition (PLD). The structure of the films have been investigated by X-ray diffraction (XRD).

A structural model based on a continuous random network (CRN) of atoms without homopolar bonds has been developed. The conduction properties, the optical properties and other physico-chemical properties have been studied. The switching effect in conduction properties has been checked. The modifications in optical reflection of the films, induced by laser pulses, have been followed in order to establish the possible use of the films in memory devices.