

Abstract Submitted
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Transparent Conductive Oxide by Pulsed Laser Deposition:
Zn₂In₂O₅¹ ROBERT KYKYNESHI, JANET TATE, Department of Physics, Oregon State University, 301 Weniger Hall, Corvallis, OR 97331, TATE GROUP TEAM — Zn₂In₂O₅ (ZIO) belongs to the class of transparent conductive oxides, in which wide band-gap and high conductivity coexist. A systematic study on the influence of pulsed laser deposition parameters on the electro-optical properties of ZIO thin films is carried out. Electron mobility up to 40 cm²/Vs and conductivity of 2000 S/cm are obtained in textured-crystalline and amorphous films. An indirect band-gap around 3 eV and low absorption in the visible range are characteristic qualities of ZIO films.

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Robert Kykyneshi
Department of Physics, Oregon State University,
301 Weniger Hall, Corvallis, OR 97331

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