Abstract Submitted
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Transparent conductive BaCuTeF thin films by pulsed laser deposition ROBERT KYKYNESHI, DAVID MCINTYRE, JANET TATE, Department of Physics, Oregon State University, Corvallis, OR 97331, CHEOL-HEE PARK[1], DOUGLAS KESZLER, Department of Chemistry, Oregon State University, Corvallis, OR 97331, TRANSPARENT CONDUCTORS TEAM — Transparent p-type carrier conductive BaCuTeF thin films are reported. Undoped BaCuTeF films obtained *in-situ* by pulsed laser deposition in UHV exhibit maximum conductivities of 50-55 S/cm on fused silica substrates. The polycrystalline films deposited at various temperatures up to 600°C are single phase with optical band gap of about 3 eV and 70% average transparency in the visible and near-IR optical ranges. BaCuTeF films deposited on single crystal MgO substrates are highly oriented.

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