



Library Indian Institute of Science Education and Research Mohali



DSpace@IISERMohali / Thesis & Dissertation / Master of Science / MS-16

Please use this identifier to cite or link to this item: <http://hdl.handle.net/123456789/3844>

Title:	Optical and structural effects of Copper doping on 2d layered (ba) 2 pbcl 4 perovskite
Authors:	Sebastian, Saumya
Keywords:	Copper Doping Layered Perovskite
Issue Date:	28-Jul-2021
Publisher:	IISERM
Abstract:	Two dimensional perovskites have emerged as interesting candidates for optoelectronic and photovoltaic applications due to their enhanced stability and tunability options. Doping perovskites enable altering their optoelectronic properties to achieve exciting properties. In this thesis, two dimensional perovskites (BA) 2 PbCl 4 was synthesised and doped with Copper. Their optical, structural and electronic properties were characterised using DRS, PXRD, SEM, EPR, XPS, FTIR and thermal properties were analysed using TGA. Doping was found to reduce the bandgap of (BA) 2 PbCl 4 from 3.5 eV to 2.3 eV. The doped compound exhibited good thermal and moisture stability and has an optimal bandgap which makes them good candidates for photovoltaic applications.
URI:	http://hdl.handle.net/123456789/3844
Appears in Collections:	MS-16

Files in This Item:

File	Description	Size	Format	
Thesis final_ms16083.pdf		3.17 MB	Adobe PDF	View/Open

Show full item record



Items in DSpace are protected by copyright, with all rights reserved, unless otherwise indicated.