

## Poster Abstracts - Session 1: Tuesday 18:00

Abstract	Poster	Pg	Presenting author	Title of Poster
1	1	51	Prof. ENGELBRECHT, Japie	An evaluation of theoretical and experimentally obtained values for the refractive index of $\text{In}_x\text{Ga}_{1-x}\text{As}$
2	2	52	Mr. AKINKUADE, Shadrach	Effect of thermal treatment on structural and electrical properties of NiO thin films
10	3	53	Mr. SEID, Endris Taju	Refluxed sol-gel synthesized ZnO: The effect of solvent volume ratio (Ethano:Water) on the properties of nanopowders
13	4	54	Mr. HABTE, Abebe G	Influence of annealing temperature on structural, morphological and optical properties of $\text{SnO}_2$ nanoparticles
15	5	55	Mr. HABTE, Abebe G	Effect of solution PH on structural, optical and morphological properties of $\text{SnO}_2$ prepared by Sol-gel method
16	6	56	Ms. LE ROUX, Samantha	A re-evaluation of neutron-irradiated 3C-SiC using FTIR reflectance infrared spectroscopy
17	7	57	Mrs. MALIMABE, Moipone Alice	Structural morphology, optical properties and photoluminescence of $\text{Ce}^{3+}$ doped ZnO nano-powders co-doped with different mole % of $\text{Eu}^{3+}$
20	8	58	Mr. ABDURRAZAQ, Abdulgaffar	Ab initio study of hydrogen passivation in carbon and oxygen related defect complexes in silicon.
25	9	59	Mr. ALI, Abdulraoof	Synthesis and characterization of gallium nitride thin films using electrochemical deposition
26	10	60	Mr. MUNGUTI, Lawrence Kioko	Effects of Zn:Ti molar ratios on the Morphological, Optical and Photocatalytic properties of ZnO/ $\text{TiO}_2$ Nanostructured composites for water purification
27	11	61	Mr. MUNGUTI, Lawrence Kioko	Effects of annealing Temperature on Structural and Optical properties of ZnO/ $\text{TiO}_2$ Nanocomposites for Water Purification
28	12	62	Dr. MALEVU, Thembinkosi	The influence of post heat treatment on the morphological behavior and particle sizes of nano-crystalline $\text{TiO}_2$ for solar cell applications
29	13	63	Mr. JANSE VAN RENSBURG, Johan	Electrical characterization of sputter deposition induced defects of Au Schottky contacts in GaAs

30	14	64	Dr. KUMAR, Vinod	Effect of oxygen partial pressure during pulsed laser deposition on defect related emission of Eu doped ZnO thin films
31	15	65	Ms. BRANDT, Leandre'	Synthesis and Characterisation of Cadmium-free CuInS/ZnS nanocrystals in combination with a [FeFe]-H <sub>2</sub> ase mimic for visible light-driven H <sub>2</sub> production in water
34	16	66	Dr. KUMAR, Vinod	Upconversion emission study of SrWO <sub>4</sub> :Er <sup>3+</sup> -Yb <sup>3+</sup> thin films prepared by radio frequency magnetron sputtering
42	17	67	Mr. MBONGO, Mduduzi	Photoluminescence and thermoluminescence properties of ZnGa <sub>2</sub> O <sub>4</sub> prepared by solid-state chemical reaction
46	18	68	Dr. LEPHOTO, Mantwa Annah	Photoluminescent and Thermoluminescent properties of LiBaBO <sub>3</sub> :Dy <sup>3+</sup> phosphors prepared by solid state reaction method
47	19	69	Dr. LEPHOTO, Mantwa Annah	Synthesis and photoluminescent properties of dysprosium doped BaB <sub>8</sub> O <sub>13</sub> phosphor
55	20	70	Ms. MRWETYANA, Nosiselo	Investigation of Ion Migration in Methylammonium Lead Bromide (MAPbBr <sub>3</sub> ) Perovskite Crystals using Current Deep Level Transient Spectroscopy (I-DLTS)

## Poster Abstracts - Session 2: Wednesday 15:15

Abstract	Poster	Pg	Presenting author	Title of Poster
57	22	71	Mr. NYARIGE, Justine	Effect of L-arginine concentration on hematite nanostructures synthesized by spray pyrolysis
58	23	72	Mr. ABDELREHMAN, Mogahid	Effect of background atmosphere and substrate temperature on SrO:Bi thin films produced using pulsed laser deposition with different lasers
59	24	73	Mr. MOFOKENG, Sefako John	Stimulated luminescence study of MgO:Al <sup>3+</sup> ,Li <sup>+</sup> prepared by solution combustion method
60	25	74	Mr. FRU, Juvet Nche	Synthesis of Methyl Ammonium Lead Tribromide Perovskite by Sequential Physical Vapour Deposition for Solar Cell Applications
64	26	75	Mr. AHMED, Mohammed	Effect of Er and Yb doping on morphology, optical and Schottky diode properties of ZnO thin films prepared by sol-gel spin coating
65	27	76	Ms. DANGA, Helga	An investigation of defects introduced in Si during sputter-deposition using deep-level transient spectroscopy
66	28	77	Mr. SELEPE, Theophilus	Green Synthesis of Metal Nanoparticles using Phycocyanin
68	29	78	Mr. TRAN, Dat	Thermal Conductivity of Ultra-Wide Bandgap Thin Layers: High-Al Content AlGa <sub>1-x</sub> N and β-Ga <sub>2</sub> O <sub>3</sub>
70	30	79	Ms. MATHEVULA, Langutani	Effect of Er <sup>3+</sup> on Structural and optical properties of microwave synthesized α-Fe <sub>2</sub> O <sub>3</sub> nanoparticles
71	31	80	Mrs. QOTSO, Angelina Seithati	Luminescence properties of P3HT-ZnO: RE ions nanoparticles: A photon up-conversion materials for organic solar cell application
72	32	81	Mr. MOJI, Rantooa	Morphology, structural and luminescent properties of sol-gel synthesized SiO <sub>2</sub> :Sr:xTb nanopowders.
73	33	82	Mr. DIX-PEEK, Ross	Temperature dependence of opto-electric response of Si PV cells
76	34	83	Ms. SHINGANGE, Katekani	LaBO <sub>3</sub> (B= Fe, CO) nanofibers and their structural, optical and gas sensing characteristics
82	35	84	Prof. TERBLANS, Koos	Investigations of Pd diffusion through ZrC thin films

85	36	85	Ms. PAULSEN, Zuraan	CdX (X=S, Se, Te) Quantum Dots and a Bi-Iron Chalcogenide for Hydrogen Generation
87	37	86	Dr. MAPASHA, Edwin	Electronic properties of vacancies in hydrogenated bilayer graphene
90	38	87	Mr. MOKOENA, Teboho Patrick	Transformation of 1D to 0D nickel oxide nanostructures induced by ramping rate during heat treatment: Gas sensing and luminescence properties
103	39	88	Mr. NGOEPE, PNM	Electrical characterization of swift heavy ion irradiated GaN by DLTS