## **Programme Overview**

TIME	Monday	Tuesday	Wednesday	Thursday	Friday
7:00 to 8:00		BREAKFAST	BREAKFAST	BREAKFAST	BREAKFAST
7.00 to 0.00		(Conference Hall)	(Conference Hall)	(Conference Hall)	(Conference Hall)
		Chair: Nel	Chair: Vorster	Chair: Vinod Kumar	
8:00 to 8:20		INVITED 1:	INVITED 4:	INVITED 8:	
0.20.1.0.40		Ashutosh Tiwari	Susanne Siebentritt	S. J. Dhoble	
8:20 to 8:40					
8:40 to 9:00		Oral 1: J. A. A. Engelbrecht	Oral 9: <b>Vinod Kumar</b>	Oral 20: <b>Vinay Kumar</b>	Booking out &
9:00 to 9:20		Oral 2: <b>R. A. Harris</b>	Oral 10: <b>R. M. Dix-Peek</b>	Oral 21: <b>P. P. Mokoena</b>	Departure
9:20 to 9:40		Oral 3: Eric N. Maluta	Oral 11: <b>Edward Lee</b>	Oral 22: <b>Ashwini Kumar</b>	
9:40 to 10:00		INIVITED 3.	INIVITED E.	INVITED O	
10:00 to 10:20		INVITED 2: <b>Peter Deák</b>	INVITED 5: Vladimir Dyakonov	INVITED 9: Lucas C. V. Rodrigues	10:00 to 10:20
10:20 to 10:40		TEA (Conference Hall)	TEA (Conference Hall)	TEA (Conference Hall)	10:20 to 10:40
		Chair: Ntwaeaborwa	Chair: van Dyk		
10:40 to 11:00		INVITED 3:	INVITED 6:	0 0 0 0	10:40 to 11:00
11:00 to 11:20		David J. Rogers	Vladimir Kolkovsky	DELING, CVACUTEC	11:00 to 11:20
11:20 to 11:40		Oral 4: <b>Trilok K. Pathak</b>	Oral 12: Matshisa J. Legodi	OFFICE OF	11:20 to 11:40
11:40 to 12:00		Oral 5: Katekani Shingange	Oral 13: Joachim Bollmann	POSTER SESSION B:	11:40 to 12:00
12:00 to 12:20		Oral 6: <b>Vijay Kumar</b>	Oral 14: Ivan G. Ivanov	posters 39 - 74	12:00 to 12:20
12:20 to 12:40		Oral 7: <b>Jitendra Sharma</b>	Oral 15: <b>D. D. Ramteke</b>	(Conference Hall upstairs)	12:20 to 12:40
12:40 to 13:00		Oral 8: <b>V. Craciun</b>	Oral 16: Muburak Y. A. Yagoub	CONFERENCE PHOTO	12:40 to 13:00
13:00 to 14:00		LUNCH (Conference Hall)	LUNCH (Conference Hall)	LUNCH (Conference Hall)	13:00 to 14:00
			Chair: Venter	Chair: Swart	
14:00 to 14:20		POSTER SESSION A:	INVITED 7:	INVITED 10:	14:00 to 14:20
14:20 to 14:40		posters 1 - 38	Martin Geller	Philippe F. Smet	14:20 to 14:40
14:40 to 15:00	Arrival & Registration	(Conference Hall upstairs)	Oral 17: Magnus C. Wagener	Oral 23: Vishal Sharma	14:40 to 15:00
15:00 to 15:20			Oral 18: <b>M. E. Lee</b>	Oral 24: <b>Jorma Hölsä</b>	15:00 to 15:20
15:20 to 15:40	(settle in to accommodation)	(cooldrink/beer/wine 15:00)	Oral 19: <b>P. O. Holtz</b>	Oral 25: <b>Iorkyaa Ahemen</b>	15:20 to 15:40
15:40 to 16:00		(COOLAITING DEET) WITE 15.00)	TEA (Conference Hall)	TEA (Conference Hall)	15:40 to 16:00
16:00 to 16:30					16:00 to 16:30
16:30 to 17:00		GAME DRIVE (option 1)	GAME DRIVE (option 2)	(free time)	16:30 to 17:00
17:00 to 17:30		(3)	(3,000.2)	, ·····•/	17:00 to 17:30
17:30 to 18:00					17:30 to 18:00
	\\/E  00 = =			CONFERENCE	
18:00	WELCOME DINNER	DINNER	DINNER	CONFERENCE DINNER	18:00
to 20:30	(Wild Olive Restaurant)	(Mountain Lodge)	(Roma)	(Mountain Lodge)	to 20:30
	(vviid Olive Restaurant)	(iviountain Louge)	(Boma)	(iviountain Louge)	20.55

### Scientific Programme and Abstracts Tuesday 28 March

Time	Activity				
7:00-8:00	Breakfast (Conference Hall)				
	ORAL SESSION 1: Chairperson – Jackie Nel				
8:00-8:40	Invited Talk 1: Ashutosh Tiwari (p. iv)				
	p. 2: Programmable bioelectronic devices and systems				
8:40-9:00	Oral 1: J. A. A. Engelbrecht				
0.40 7.00	p. 3: An assessment of theoretical models for the calculation of the refractive index of $In_xGa_{1-x}As$				
	Oral 2: <b>R. A. Harris</b>				
9:00-9:20	p. 4: Surface enhanced Raman scattering through selective substitution of thiolated coumarin				
	derivatives on gold nanoparticles				
	Oral 3: Eric N. Maluta				
9:20-9:40	p. 5: Density functional theory study of TiO <sub>2</sub> brookite (100), (110) and (210) surfaces doped				
	with ruthenium (Ru) and calcium (Ca) for application in dye-sensitized solar cell				
9:40-10:20	Invited Talk 2: <b>Peter Deák</b> (p. v)				
	p. 6: Calculating the optical properties of defects and surfaces in diamond and TiO <sub>2</sub>				
10:20-10:40	Tea (Conference Hall)				
	ORAL SESSION 2: Chairperson – Martin Ntwaeaborwa				
10:40-11:20	Invited Talk 3: <b>David J. Rogers</b> (p. iv)				
10.10 11.20	p. 7: Zinc oxide based photonics				
11:20-11:40	Oral 4: Trilok K. Pathak				
11.20 11.10	p. 8: Structural and plasmonic properties of noble metal doped ZnO nanomaterials				
	Oral 5: Katekani Shingange				
11:40-12:00	p. 9: Microwave-assisted synthesis of Au nanoparticles incorporated ZnO rose-like hierarchical				
	structures and their gas sensing properties				
	Oral 6: Vijay Kumar				
12:00-12:20	p. 10: Recent advances in plasmon enhanced luminescence upconversion of lanthanide-doped				
	NaYF <sub>4</sub> core-shells for solar cell applications				
12:20-12:40	Oral 7: Jitendra Sharma				
	p. 11: Optical properties of $Sr_3B_2O_6$ : $Dy^{3+}/PMMA$ polymer nanocomposites				
12:40-13:00	Oral 8: V. Craciun				
	p. 12: Radiation effects in amorphous optical films				
13:00-14:00	Lunch (Conference Hall)				
14:00-16:00	POSTER SESSION A: posters 1 – 38 (p. 43 – 80)				
11.00 10.00	(Conference Hall upstairs)				
16:00-18:00	GAME DRIVE (option 1)				
18:00-20:30	DINNER (Mountain Lodge)				

### Scientific Programme and Abstracts Wednesday 29 March

Time	Activity					
7:00-8:00	Breakfast (Conference Hall)					
	ORAL SESSION 3: Chairperson – Freddie Vorster					
8:00-8:40	Invited Talk 4: Susanne Siebentritt (p. vi)					
	p. 14: Why do we make CIGS solar cells off-stoichiometric?					
8:40-9:00	Oral 9: Vinod Kumar					
0.40-2.00	p. 15: Rare earth doped up conversion nanophosphor for solar cell application					
9:00-9:20	Oral 10: R. M. Dix-Peek					
	p. 16: Identification of defects in poly-crystalline Si solar cells					
	Oral 11: Edward Lee					
9:20-9:40	p. 17: Synthesis and characterisation of $Y_2O_3$ phosphor co-doped with bismuth and ytterbium					
	ions for application in solar cells					
9:40-10:20	Invited Talk 5: Vladimir Dyakonov (p. vi)					
10.20.10.40	p. 18: Charge carrier recombination in perovskite solar cells					
10:20-10:40	Tea (Conference Hall)					
	ORAL SESSION 4: Chairperson – Ernest van Dyk					
10:40-11:20	Invited Talk 6: Vladimir Kolkovsky (p. vii)					
	p. 19: Carbon-hydrogen-related complexes in Si					
11:20-11:40	Oral 12: Matshisa J. Legodi					
11.20-11.40	p. 20: Deep Level Transient Spectroscopy and Admittance Spectroscopy of methylammonium lead-bromide (CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> ) perovskite solar cells					
	Oral 13: Joachim Bollmann					
11:40-12:00	p. 21: Admittance Spectroscopy or DLTS: a contrasting juxtaposition					
	Oral 14: Ivan G. Ivanov					
12:00-12:20	p. 22: Doping and defects in fluorinated SiC CVD					
	Oral 15: <b>D. D. Ramteke</b>					
12:20-12:40	p. 23: Structure and photoluminescence properties of $Ba_{(1-x)2}Si_4O_{10}$ : $xSm^{3+}$					
10 10 10 00	Oral 16: Mubarak Y. A. Yagoub					
12:40-13:00	p. 24: Low temperature photoluminescence study of $Ce^{3+}$ and $Eu^{2+}$ ions doped $SrF_2$ nanocrystal					
13:00-14:00	Lunch (Conference Hall)					
	ORAL SESSION 5: Chairperson – André Venter					
14:00-14:40	Invited Talk 7: Martin Geller (p. vii)					
14:00-14:40	p. 25: Spectroscopy on self-assembled quantum dots: transport meets optics					
	Oral 17: Magnus C. Wagener					
14:40-15:00	p. 26: Electronic structure and optical properties of GaSb/GaAs and GaSb/Al <sub>x</sub> Ga <sub>1-x</sub> As quantum					
	rings					
15:00-15:20	Oral 18: M. E. Lee					
	p. 27: Optical and microanalytical characterization of $Al_xGa_{1-x}N$ epilayers for photonic					
	applications					
15:20-15:40	Oral 19: P. O. Holtz					
15.40 16.00	p. 28: Single polarized-photon emitters from elongated III-nitride pyramidal quantum dots					
15:40-16:00	Tea (Conference Hall)					
16:00-18:00	GAME DRIVE (option 2)					
18:00-20:30	DINNER (Boma)					

# Scientific Programme and Abstracts Thursday 30 March

Time	Activity			
7:00-8:00	Breakfast (Conference Hall)			
	ORAL SESSION 6: Chairperson – Vinod Kumar			
	Invited Talk 8: S. J. Dhoble (p. viii)			
8:00-8:40	p. 30: Luminescence behaviour of lanthanide ions in different host lattices and their application			
	in LED for lighting			
8:40-9:00	Oral 20: Vinay Kumar			
0.40-2.00	p. 31: Potential of Sm³+ doped LiSrVO4 nanophosphor to fill amber gap in LEDs			
	Oral 21: P. P. Mokoena			
9:00-9:20	p. 32: Up-conversion luminescence of $Er^{3+}/Yb^{3+}$ doped $Sr_5(PO_4)_3OH$ phosphor powders for			
	photodynamic therapy			
9:20-9:40	Oral 22: Ashwini Kumar			
7.20-7.40	p. 33: Co-operative energy transfer in $Yb^{3+}$ - $Tb^{3+}$ co-doped $SrGd_4O_7$ upconverting phosphor			
9:40-10:20	Invited Talk 9: Lucas C. V. Rodrigues (p. ix)			
9.40-10.20	p. 34: Designing infrared persistent luminescence materials			
10:20-10:40	Tea (Conference Hall)			
10:40-12:40	POSTER SESSION B: posters 39 – 74 (p. 81 – 116)  (Conference Hall upstairs)			
12:40-13:00	CONFERENCE PHOTO			
13:00-14:00	Lunch (Conference Hall)			
	ORAL SESSION 7: Chairperson – Hendrik Swart			
	Invited Talk 10: <b>Philippe F. Smet</b> (p. ix)			
14:00-14:40	p. 35: Enhancing the performance of persistent phosphors: focus on the trapping defects and			
	detrapping processes			
	Oral 23: Vishal Sharma			
14:40-15:00	p. 36: Combustion synthesis of blue long lasting phosphor $CaAl_4O_7$ : $Eu^{2+}$ , $Dy^{3+}$ and its novel			
	application in fingerprint and lip mark detection			
15:00-15:20	Oral 24: <b>Jorma Hölsä</b>			
13.00 13.20	p. 37: Defects and impurities: from Bologna Stone to gem stones			
15:20-15:40	Oral 25: Iorkyaa Ahemen			
13.20 13.40	p. 38: Spectroscopic investigation of Ce <sup>3+</sup> /Eu <sup>3+</sup> co-doped Li <sub>2</sub> BaZrO <sub>4</sub> nanophosphors			
16:00-18:00	Free time			
18:00-20:30	CONFERENCE DINNER (Mountain Lodge)			

# Poster Abstracts – Session A (posters 1-38)

Poster	Presenter	Title	
1 (p. 43)	Edwin Mapasha	Electronic properties of B and Al doped <i>graphane</i> : A hybrid density functional study	
2 (p. 44)	Emmanuel Igumbor	First principle studies of electronic properties of single and bilayer mixed dichalcogenide	
3 (p. 45)	Emmanuel Igumbor	Hybrid functional study of P, As, Sb and Bi defect levels in Ge	
4 (p. 46)	Felana Andriambelaza	First principles studies of Te line ordered alloys in a MoS <sub>2</sub> monolayer	
5 (p. 47)	Helga T. Danga	Electrically active defects in epitaxial <i>p</i> -type silicon after alpha-particle irradiation	
6 (p. 48)	Helga Danga	Electrical characterization of alpha-particle induced defects in Pd/ZnO Schottky barrier diodes	
7 (p. 49)	Benard S. Mwankemwa	Effects of surface morphology on the optical and electrical properties of Schottky diodes of CBD deposited ZnO nanostructures	
8 (p. 50)	Alexander T. Paradzah	Ultrafast electron and hole dynamics of photo-excited hematite thin films: An intensity dependency study	
9 (p. 51)	Abraham Barnard	Activation energy and mechanism of the annealing of Sb-vacancy and E' complex's in n-type germanium	
10 (p. 52)	Kelebogile Maabong	Optical and photoelectrochemical properties of hematite photoanode: influence of thickness and growth temperature	
11 (p. 53)	Ezekiel Omotoso	The influence of thermal annealing on the characteristics of Au/Ni Schottky contacts on <i>n</i> -type 4 <i>H</i> -SiC	
12 (p. 54)	Shandirai M. Tunhuma	Doping dependence of the electrical characteristics of nitrogen-doped n-type 4H-silicon carbide	
13 (p. 55)	Fatemeh Taghizadeh	Laplace DLTS characterization of the fine structure associated with the radiation induced E3 defect in GaAs	
14 (p. 56)	Kian Ostvar	Electric field dependence study of the E <sub>C</sub> -0.58 eV centre in bulk grown n-type gallium arsenide using Laplace DLTS	
15 (p. 57)	P. N. M. Ngoepe	Characterisation of ion implanted GaN by DLTS	
16 (p. 58)	Walter Meyer	In-system monitoring of MOSFET threshold voltage due to radiation degradation	
17 (p. 59)	V. E. Gora	Determination of the optimum annealing temperature to erase alpha induced defects on Co-4H-SiC Schottky contacts	
18 (p. 60)	V. E. Gora	Comparison of the properties of nickel, cobalt, palladium and tungsten Schottky contacts on 4H-silicon carbide	
19 (p. 61)	SJ Dhoble	Energy Transfer from Pr <sup>3+</sup> to Gd <sup>3+</sup> in BaB <sub>8</sub> O <sub>13</sub> phosphor and its application in phototherapy lamp	

20 (p. 62)	Winfred Mueni Mulwa	DFT+U and experimental studies of Ce <sup>3+</sup> Cu <sup>2+</sup> :γ-Al <sub>2</sub> O <sub>3</sub>	
21 (p. 63)	Sudhakar Reddy Busireddy	Preparation and characterization of Eu <sup>3+</sup> & Tb <sup>3+</sup> ions doped alkali oxide (Li <sub>2</sub> O/Na <sub>2</sub> O/K <sub>2</sub> O) modified borophosphate glasses for red and green laser and display device applications	
22 (p. 64)	E. Coetsee	Energy transfer study between Ce <sup>3+</sup> and Tb <sup>3+</sup> ions in a calcium fluoride crystal	
23 (p. 65)	D. I. Shahare	Luminescence properties of Na <sub>2</sub> Sr <sub>2</sub> Al <sub>2</sub> PO <sub>4</sub> Cl <sub>9</sub> :Sm <sup>3+</sup> phosphor	
24 (p. 66)	George Tshabalala	Synthesis and characterization of $MV_{0.5}P_{0.5}O_4$ : $Sm^{3+}$ , $Tm^{3+}$ ( $Ln = Gd$ , $La$ , $Y$ ) for solar cells application	
25 (p. 67)	Jorma Holsa	Paramagnetism of rare earth ions with the same 4f <sup>7</sup> electron configuration: Eu <sup>2+</sup> , Gd <sup>3+</sup> and Tb <sup>IV</sup> in EuAl <sub>2</sub> O <sub>4</sub> , Gd <sub>2</sub> O <sub>3</sub> , and TbO <sub>2</sub>	
26 (p. 68)	Jorma Holsa	Microstructural and spectroscopic properties of the CaTiO <sub>3</sub> :Pr <sup>3+</sup> ,Zn <sup>2+</sup> red emitting persistent phosphor	
27 (p. 69)	D. D. Ramteke	Physical and optical properties of lithium borosilicate glasses doped with Dy <sup>3+</sup> ions	
28 (p. 70)	Simon N. Ogugua	Photoluminescent dynamics of Pr <sup>3+</sup> and Dy <sup>3+</sup> in R <sub>2</sub> SiO <sub>5</sub> (R = La, Y) host	
29 (p. 71)	Kishore Kumar Nair	Synthesis of Ag-SnO <sub>2</sub> nanocomposites and evaluation of optical, photoluminescence and antimicrobial properties	
30 (p. 72)	L. Mathevula	Structural and optical properties of rare-earth doped α-Fe <sub>2</sub> O <sub>3</sub> nanoparticles	
31 (p. 73)	R.E. Kroon	Reflection measurements for luminescent powders	
32 (p. 74)	R.E. Kroon	Investigating the capability of ToF-SIMS to determine the oxidation state of Ce ions	
33 (p. 75)	L. J. B. Erasmus	Characterisation of the optical thermometry properties of La <sub>2</sub> O <sub>2</sub> S:Eu phosphor material	
34 (p. 76)	Trilok K. Pathak	Effect of annealing temperature on structural and luminescence properties of Eu doped NaYF4 phosphor	
35 (p. 77)	LF Koao	Influence of citric acid solution on LiMn <sub>2</sub> O <sub>4</sub> nanostructures prepared by chemical bath deposition method	
36 (p. 78)	LF Koao	Structural and luminescence properties of self-yellow emitting undoped Zn <sub>2</sub> V <sub>2</sub> O <sub>7</sub> and (Ca, Ba, Sr)-doped Zn <sub>2</sub> V <sub>2</sub> O <sub>7</sub> phosphors synthesised by combustion method	
37 (p. 79)	A. Balakrishna	Host sensitized near-infrared emission in Nd <sup>3+</sup> doped different alkaline earth-sodium-phosphors	
38 (p. 80)	M.M. Duvenhage	Role of target and Ga particulates on the surface and optical properties of Y <sub>3</sub> (Al,Ga) <sub>5</sub> O <sub>12</sub> :Tb thin films prepared by PLD	

## Poster Abstracts – Session B (posters 39-74)

Poster	Presenter	Title		
39 (p. 81)	Danielle Venter	Capacitance spectroscopy on GaNAs/GaAs quantum structure embedded solar cells		
40 (p. 82)	Sebastian Mienie	Hall effect electrical characterization of solar cell materials		
41 (p. 83)	A. J. Fourie	Deposition of CZT-precursor layers for CZTS solar cell		
42 (p. 84)	Peter C. Korir	Effect of selenization time on the structural and morphological properties of Cu(In,Ga)Se <sub>2</sub> thin film absorber layer using a two-step growth process		
43 (p. 85)	JR Botha	Effect of dopant density on contact potential difference across n-type GaAs homojunctions using Kelvin probe force microscopy		
44 (p. 86)	J. R. Botha	Patterned growth of ZnO nanorods for organic/inorganic hybrid solar cell		
45 (p. 87)	Francis Dejene	Effect of growth temperature on structural and luminescence properties of ZnO nanoparticles		
46 (p. 88)	Francis Dejene	Effects of precursor concentration on morphological and structure properties of TiO <sub>2</sub> synthesized via sol-gel method		
47 (p. 89)	A. K. Bedyal	A potential green emitting citrate gel synthesized NaSrBO <sub>3</sub> :Tb <sup>3+</sup> phosphor for display application		
48 (p. 90)	LL Noto	Photoluminescence and thermoluminescence properties of BaGa <sub>2</sub> O <sub>4</sub>		
49 (p. 91)	Vinod Kumar	Tailoring and optimization of optical properties of CdO thin films for optoelectronic applications		
50 (p. 92)	Vinod Kumar	Photons and electron beam pumped luminescence characteristics of holmium activated CaMoO <sub>4</sub> phosphor		
51 (p. 93)	Chinedu C. Ahia	Photoluminescence and structural properties of single and double MOVPE-grown InGaSb/GaSb quantum wells		
52 (p. 94)	Ngcali Tile	Atmospheric pressure-MOVPE growth of GaSb/GaAs quantum dots		
53 (p. 95)	S. R. Dobson	Photoluminescence measurements of InAs <sub>(1-x)</sub> Sb <sub>(x)</sub> lattice matched to GaSb		
54 (p. 96)	V. Craciun	Optical and structural properties of Type-II quantum dots		
55 (p. 97)	Vijay Kumar	Recent advances in rare earth doped alkali-alkaline earth borates for solid state lighting applications: a mini review		
56 (p. 98)	Vladimir Kolkovsky	Hydrogen-related defects in Al <sub>2</sub> O <sub>3</sub> layers grown on <i>n</i> -type Si by the atomic layer deposition technique		
57 (p. 99)	Mustafa Ahmed	Effect of Sm doping on the structural and optical properties of ZnO nanorods grown by chemical bath deposition		
58 (p. 100)	S. R. Tankio Djiokap	Influence of NiO as intermediate layer on the properties of ZnO grown on Si by chemical bath deposition		
59 (p. 101)	E. Hasabeldaim	Effect of substrate temperature and post annealling temperature on ZnO:Zn PLD thin film properties		
60 (p. 102)	Jatani Ungula	Effect of pH on the structural, optical and morphological properties of Ga-doped ZnO nanoparticles prepared by reflux method		
61 (p. 103)	A. Talla	Block copolymer templates for zinc oxide nanorods		

62 (p. 104)	T. L. Lotha	Sol-gel synthesis and characterization of doped barium titanate nanophosphors		
63 (p. 105)	Dickson Andala	Magnetic and optical properties of un-doped and Co-doped TiO <sub>2</sub> nanotubes from electrospun carbon fiber templates		
64 (p. 106)	Dickson Andala	Photochemical and photophysical properties gold nanoparticles supported on electrospun TiO <sub>2</sub> nanofibers		
65 (p. 107)	G. L. Kabongo	Investigation of ZnO:RE <sup>3+</sup> nanostructures for efficient charge transfer in hybrid based P3HT heterostructures		
66 (p. 108)	G. L. Kabongo	Enhanced room temperature ferromagnetism in sol-gel derived ZnO:Ho <sup>3+</sup> nanostructures		
67 (p. 109)	BS Mwankemwa	Thickness determination of interfacial SiO <sub>2</sub> ultra-thin films between ZnO based materials and the Si substrate		
68 (p. 110)	Mantwa A. Lephoto	Study on photoluminescence and energy transfer of Eu <sup>3+</sup> /Sm <sup>3+</sup> single-doped and co-doped BaB <sub>8</sub> O <sub>13</sub> phosphors		
69 (p. 111)	Sharon Kiprotich	A comparison investigation of optical, structural and luminescence properties of CdO <sub>x</sub> Te <sub>1-x</sub> and CdTe <sub>x</sub> Se <sub>1-x</sub> nanoparticles prepared by a simple one pot method		
70 (p. 112)	Sharon Kiprotich	High luminescent L-cystine capped CdTe quantum dots prepared at different reaction times		
71 (p. 113)	Fekadu Gashaw Hone	Roles of cationic concentration and pH on the structural, morphological and optical band gap of chemically synthesized lead sulphide thin films		
72 (p. 114)	Promod Kumar	Plasmonic metamaterial-based graphene/TiO <sub>2</sub> /Ag thin film by a simple spray pyrolysis technique		
73 (p. 115)	Shadrach Akinkuade	Synthesis, structural, optical and electrical characteristics of nickel oxide thin films by chemical processing methods		
74 (p. 116)	Zamaswazi Tshabalala	Structural transformation and enhanced gas sensing characteristics of TiO <sub>2</sub> nanostructures induced by annealing		

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