

CONTENTS

- | S. No. | Title |
|--------|---|
| 1. | 70 years of Elastohydrodynamic Lubrication (EHL): A Review on Experimental Techniques for Film Thickness and Pressure Measurement
R. Kumar, M. S. Azam, S. K. Ghosh and S. Yadav
<i>Mapan-Journal Of Metrology Society Of India (December 2018) 33(4):481–491</i> |
| 2. | A facile chemical route synthesis and characterization of CdSe/ ZnO nanocomposite
Isha Das, Suresh Sagadevan, Zaira Zaman Chowdhury, N. Vijayan
<i>J Mater Sci: Mater Electron (2018) 29:1600–1606</i> |
| 3. | A first principles study of key electronic, optical, second and third order nonlinear optical properties of 3-(4-chlorophenyl)-1-(pyridin-3-yl) prop-2-en-1-one: a novel D- π -A type chalcone derivative
Mohd. Shkir, S. AlFaify, M. Arora , V. Ganesh, Haider Abbas, I. S. Yahia
<i>J Comput Electron (2018) 17:9–20</i> |
| 4. | A fluorene-core-based electron acceptor for fullerene-free BHJ organic solar cells—towards power conversion efficiencies over 10%
Suman, Anirban Bagui, Ashish Garg, Barkha Tyagi, Vinay Gupta and Surya Prakash Singh
<i>Chem. Commun., 2018, 54, 4001–4004</i> |
| 5. | A Non-destructive FTIR Method for the Determination of Ammonium and Sulfate in Urban PM 2.5 Samples
V. Goel, S. K. Mishra, C. Sharma, B. Sarangi, S. G. Aggarwal, R. Agnihotri and R. K. Kotnala
<i>Mapan-Journal Of Metrology Society Of India (September 2018)33(3):209–215</i> |
| 6. | A novel method of diameter measurement of pistons used in pressure standards using scanning principle and fusion technique
Mahammad Arif Sanjid , K P Chaudhary, Sanjay Yadav , Mrinal Sen, and Sanjoy K Ghoshal
<i>Meas. Sci. Technol. 29 (2018) 085008 (7pp)</i> |
| 7. | A photoluminescence, thermoluminescence and electron paramagnetic resonance study of EFG grown europium doped lithium fluoride (LiF) crystals
Pooja Seth, G. Swati, D. Haranath , S.M.D. Rao, Shruti Aggarwal
<i>Journal of Physics and Chemistry of Solids 118 (2018) 53–61</i> |
| 8. | A simple method to estimate the loading effects of Al/Si on the characteristic impedance of multilayer microstrip line
Sandhya M Patel , Yogita Kalra, V N Ojha & R K Sinha
<i>Indian Journal of Pure & Applied Physics Vol. 56, December 2018, pp. 959-964</i> |
| 9. | A strategy to design lanthanide doped dual-mode phosphor mediated spectral convertor for solar cell applications
Pawan Kumar, Kanika, Satbir Singh, Rimli Lahon, Abhiram Gundimeda, Govind Gupta, Bipin Kumar Gupta
<i>Journal of Luminescence 196 (2018) 207–213i</i> |

CONTENTS

10. A systematic study of structural, magnetic and electric properties of perovskite-spinel composites prepared by sol-gel technique
Jarnail S. Bangruwa, Balesh Kumar Vashisth, Neelam Singh, **Nidhi Singh**, Vivek Verma
Journal of Alloys and Compounds 739 (2018) 319e326
11. A theoretical and experimental formalism of electronic structure of BFO:Cr thin films and modulation of their electrical properties upon visible light illumination
Shaan Ameer, Kajal Jindal, Monika Tomar, **Ashok Kumar**, Pradip K. Jha and Vinay Gupta
Journal Of Applied Physics 124, 155304 (2018)
12. AFe₂O₄/(Pb 0.80 Sr 0.20)TiO₃ (A = Mn, Ni and Co): a New Room-Temperature Magnetoelectric Multiferroic Bi-layered Composite Films
Kanchan Bala, **R. K. Kotnala**, **Jyoti Shah**, N. S. Negi
Journal of Superconductivity and Novel Magnetism (2018) 31:3007–3023
13. Al₂O₃-TiC Composite Prepared by Spark Plasma Sintering Process: Evaluation of Mechanical and Tribological Properties
Rohit Kumar, A.K. Chaubey, **Sivaiah Bathula**, K.G. Prashanth and **Ajay Dhar**
JMEPEG (2018) 27:997–1004 <https://doi.org/10.1007/s11665-017-3113-9>
14. Aluminium metal matrix composites: A retrospective investigation
Girija Moona, **R S Walia**, **Vikas Rastogi & Rina Sharma**
Indian Journal of Pure & Applied Physics Vol. 56, February 2018, pp. 164-175
15. An emerging nanostructured molybdenum trioxide-based biocompatible sensor platform for breast cancer biomarker detection
Shine Augustine, **Amish G. Joshi**, Birendra Kumar Yadav, Anurag Mehta, Pragati Kumar, Venkatesan Renugopalakrishnan, Bansi D. Malhotra,
MRS Communications Volume 8, Issue 3 September 2018 , pp. 668-679
16. Analysing Effect of Different Parameters on Performance of Dodecyl Benzene Sulphonic Acid Doped Polyaniline based Ammonia Gas Sensor
Anju Yadav, Rahul Prajesh, Ajay Agarwal and **Parveen Saini**
10.1109/ICSENS.2018.8589557
17. Analysis of Extended Threshold Wavelength Photoresponse in Nonsymmetrical p-GaAs/AlGaAs Heterostructure Photodetectors
Divya Somvanshi, Dilip Chauhan, Yan-Feng Lao, A.G.Unil Pera, Lianhe Li, **Suraj Parkash Khanna** and Edmund Harold Linfield
IEEE Journal Of Selected Topics In Quantum Electronics, vol. 24, no. 2, March/April 2018
18. Angular and field dependent flux pinning in artificially doped YBCO films on IBAD-MgO based template
M.Z. Khan, M. Malmivirta, Y. Zhao, X. Wu, **R. Jha**, **V.P.S. Awana**, H. Huhtinen, P. Paturi
Physica C: Superconductivity and its applications 555 (2018) 15–23

CONTENTS

19. APMP.EM-S12 Comparison of Standards for the Calibration of Voltage, Current and Resistance Meters
Louis Marais, Steven Yang, Brenda Lam, LIU Yue, **Thomas John, P.S. Negi**, Hiroaki Sakuma, Eiji Watabe, Chua Sze Wey, Chalit Kumtawee and Yaowaret Pimsut
Metrologia 55 01005 2018
20. As-pyrolyzed sugarcane bagasse possessing exotic field emission properties
Lucky Krishnia, Brajesh S. Yadav, Umesh Palnitkar, P.V. Satyam, **Bipin Kumar Gupta**, Nikhil A. Koratkar, Pawan K. Tyagi
Applied Surface Science 443 (2018) 184–190
21. Assessment of satellite-retrieved surface UVA and UVB radiation by comparison with ground-measurements and trends over Mega-city Delhi
Sachchidanand Singh, Neelesh K. Lodhi, **Amit Kumar Mishra, Sandhya Jose**, S. Naresh Kumar, **R.K. Kotnala**
Atmospheric Environment 188 (2018) 60–70
22. Axicon aberration leading to short- range nondiverging optical array and elliptical dark hollow beam
Rajeev Dwivedi, Parag Sharma, Virendra Kumar Jaiswal, Ranjana Mehrotra
Optical Engineering 57(5), 055106 (May 2018)
23. Binary Multifunctional Ultrabroadband Self-Powered g-C₃N₄/Si Heterojunction High-Performance Photodetector
Nisha Prakash, Gaurav Kumar, Manjri Singh, Arun Barvat, Prabir Pal, Surinder P. Singh, H. K. Singh and Suraj P. Khanna
Adv. Optical Mater. 2018, 6, 1800191
24. Bio-functionalization of grade V titanium alloy with type I human collagen for enhancing and promoting human periodontal fibroblast cell adhesion – an in-vitro study
Jitendra Sharan, Veena Koul, Amit K. Dinda, Om P. Kharbanda, Shantanu V. Lale, Ritu Duggal, **Monu Mishra, Govind Gupta**, Manoj P. Singh
Colloids and Surfaces B: Biointerfaces 161 (2018) 1–9
25. Biofunctionalized graphene oxide wrapped carbon nanotubes enabled microfluidic immuno chip for bacterial cells detection
Chandan Singh, Md. Azahar Ali, Venu Reddy, Dinesh Singh, Cheol Gi Kim, G. Sumana, B.D. Malhotra
Sensors and Actuators B 255 (2018) 2495–2503
26. Biospectroscopic analysis of human breast cancer tissue: probing infrared signatures to comprehend biochemical alterations
Ranjana Mehrotra, Gunjan Tyagi, Sonika Charak, Bhumika Ray, Geeta Kadayaprath, Harit Chaturvedi, Urmi Mukherjee & Andleeb Abrari
Journal of Biomolecular Structure and Dynamics, 2018
27. Carbon material-nanoferrite composite for radiation shielding in microwave frequency
Preeti Gairola, S. P. Gairola, **S. K. Dhawan**, R. P. Tandon, Vinay Gupta, L. P. Purohit & Sudesh Sharma
Integrated Ferroelectrics 2018 VOL. 186,40-48

CONTENTS

28. Carbonaceous and inorganic species in PM 10 during wintertime over Giridih, Jharkhand (India)
S. K. Sharma, T. K. Mandal, A. K. De, N. C. Deb, Srishti Jain, Mohit Saxena, S. Pal & A. K. Choudhuri, Saraswati
J Atmos Chem (2018) 75:219–233
29. Carbonaceous Species of PM 2.5 in Megacity Delhi, India During 2012–2016
S. K. Sharma, T. K. Mandal, A. Sharma, Srishti Jain, Saraswati
Bulletin of Environmental Contamination and Toxicology (2018) 100:695–701
30. Cement paint composite as pollution tracker for electromagnetic radiations
Dolly Kumari, **S K Dhawan**, Narayan Agrawal and Swati Varshney
Mater. Res. Express 5 (2018) 125602
31. Characterization and source apportionment of organic compounds in PM 10 using PCA and PMF at a traffic hotspot of Delhi
Sarika Gupta, Ranu Gadi, **S.K. Sharma, T.K. Mandal**
Sustainable Cities and Society 39 (2018) 52–67
32. Characterization of Capacitance Standards at High Frequency at National Physical Laboratory, India
satish, Jyoti Swami, Babita, Thomas John
mapan-journal of metrology society of india (june 2018) 33(2):131–137
33. Charge carrier dynamics in PffBT4T-2OD: PCBM organic solar cells
Ramakant Sharma, Vinay Gupta, Hyunwoo Lee, Kunal Borse, **Ram Datt, Chhavi Sharma, Mahesh Kumar**, Seunghyup Yoo, Dipti Gupta,
Organic Electronics 62 (2018) 441–447
34. Chemistry of extracting high-contrast invisible fingerprints from transparent and colored substrates using a novel phosphorescent label†
G. Swati, Swati Bishnoi, Paramjeet Singh, Naina Lohia, Vishnu V. Jaiswal, M. K. Dalai and D. Haranat
Anal. Methods, 2018, 10, 308–313
35. Collective dielectric processes at the transition temperature of the Sm-C * and Sm- A * phase in a ferroelectric liquid crystal
Lokesh K. Gangwar, Ambika Bawa, Amit Choudhary, **Surinder P. Singh, Rajesh and Ashok M. Biradar**
Phys. Rev. E 97, 062707 27 June 2018
36. Competition between electron pairing and phase coherence in superconducting interfaces
G. Singh, A. Jouan, L. Benfatto, F. Couëdo, **P. Kumar, A. Dogra**, R.C. Budhani, S. Caprara M. Grilli, E. Lesne, A. Barthélémy, M. Bibes, C. Feuillet-Palma, J. Lesueur, N. Bergeal
Nature Communications | (2018) 9:407

CONTENTS

37. Compositional tuning of ZrNiSn half-Heusler alloys: Thermoelectric characteristics and performance analysis
Nagendra S. Chauhan, Sivaiah Bathula, Avinash Vishwakarma, Ruchi Bhardwaj, Kishor Kumar Johari, Bhasker Gahtori, Muthiah Saravanan, Ajay Dhar
Journal of Physics and Chemistry of Solids 123 (2018) 105–112
38. Conducting polymer/bio-material composite coatings for corrosion protection
Pradeep Sambyal, Gazala Ruhi, Monu Mishra, Govind Gupta, Sundeep K. Dhawan
Materials and Corrosion. 2018;69:402–417
39. Conduction pathways in CNF/PTFE composite: Air oxidized CNFs coated with the incomplete layer of PTFE
Fateh Singh Gill, Sarita Chandra, Varij Panwar, Divya Uniyal, G.S. Kalra, Vinay Kumar, **Preeti Garg**
Diamond & Related Materials 89 (2018) 227–238
40. Conductive polymers for thermoelectric power generation
Meetu Bharti, Ajay Singh, Soumen Samanta, **D.K. Aswal**
Progress in Materials Science 93 (2018) 270–310
41. Consequences of phase separation on magnetotransport in dc magnetron sputtered Sm 0.50 Sr 0.50 MnO₃ thin films on LSAT substrate
Akash Yadav, M.K. Srivastava, P.K. Siwach, H.K. Singh,
Vacuum 153 (2018) 176e183
42. ‘Constitution of India’: Preservation of original
D.K Aswal, Ranjana Mehrotra
Current Science, VOL. 115, NO. 4, 25 AUGUST 2018
43. Core-Shell Nanostructured Mixed Ligand Directed ZnO Nanoparticles with Excellent Structural, Optical and Electronic Properties for Application in Light Emitting Devices
Charu Madhu, Navneet Kaur, Inderpreet Kaur, Gaurav Madhu, and Ritu Srivastava
journal of electronic materials, vol. 47, no. 12, 2018
44. CoSP approach for the synthesis of blue MoO₃ nanoparticles for application as hole transport layer (HTL) in organic solar cells
Charu Dwivedi, Tauheed Mohammad, Vishal Bharti, **Asit Patra, Sandeep Pathak, Viresh Dutta**
Solar Energy 162 (2018) 78–83
45. Cryogenic measurement set-up for characterization of superconducting nano structures for single-photon detection applications
Manju Singh, Rishu Chaujar and R. K. Rakshit,
current science, vol. 115, no. 6, 25 september 2018
46. Crystal growth and characterization of bulk Sb₂Te₃ topological insulator
Rabia Sultana, Ganesh Gurjar, S Patnaik and V P S Awana
Mater. Res. Express 5 (2018) 046107

CONTENTS

47. Crystal structure refinement, dielectric and magnetic properties of A- site and B-site co-substituted Bi 0.90 Nd 0.10 Fe 1-x Ti x O 3 (x1/40.00, 0.02, 0.05 & 0.07) ceramics
Manisha Yadav, Ashish Agarwal, Sujata Sanghi, **R.K. Kotnala, Jyoti Shah,**
Tanvi Bhasin, Muskaan Tuteja, Jogender Singh
Journal of Alloys and Compounds 750 (2018) 848e856
48. Crystal structure, dielectric, magnetic and improved magnetoelectric properties of xNiFe 2 O 4 -(1-x)Na 0.5 Bi 0.5 TiO 3 composites
Tanvi Bhasin, Ashish Agarwal, Sujata Sanghi, **RK Kotnala, Jyoti Shah,**
Manisha Yadav, Muskaan Tuteja and Jogender Singh
Mater. Res. Express 5 (2018) 106102
49. Crystal structure, dielectric, magnetic and magnetoelectric properties of xNiFe 2 O 4 - (1-x)Na 0.5 Bi 0.5 TiO 3 composites
Tanvi Bhasin, Ashish Agarwal, Sujata Sanghi, **R.K. Kotnala, Jyoti Shah ,**
Manisha Yadav ,Muskaan Tuteja
Journal of Alloys and Compounds 748 (2018) 1022e1030
50. Cytotoxicity of Graphene Oxide (GO) and Graphene Oxide Conjugated Losartan Potassium (GO-LP) on Neuroblastoma (NB41A3) Cells
Ramneek Kaur, **Shilpi Verma,** Prachi Joshi, **Surinder P. Singh** and Manisha Singh
J. Nanosci. Nanotechnol. 2018, Vol. 18, No. 10
51. Deciphering the Role of Oxygen Vacancies on Structural, Electrical, and Magnetic Properties of Fe-Substituted Strontium Titanate
Neha Sarin, **Monu Mishra, Govind Gupta, Manju Arora** and Vandna Luthra
phys. status solidi b 2018, 255, 1700683
52. Dependence of Al incorporation on growth temperature during laser molecular beam epitaxy of Al x Ga 1-x N epitaxial layers on sapphire (0001)
Prashant Tyagi, Ch Ramesh, S.S. Kushvaha, Monu Mishra, Govind Gupta,
B.S. Yadav, **M. Senthil Kumar**
Journal of Alloys and Compounds 739 (2018) 122e128
53. Depth dynamics of soil N contents and natural 15 abundances of N after 43 years of long-term fertilization and liming in sub-tropical Alfisol
Avijit Ghosh, Ranjan Bhattacharyya, Brahma Swaroop Dwivedi, Dipak Ranjan Biswas, Mahesh Chandra Meena, Abhijit Sarkar, Binay Kumar Agarwal, Prabhakar Mahapatra, Dharendra Kumar Shahi, **Rajesh Agnihorti and Ravi Sawlani**
Archives Of Agronomy And Soil Science, 2018vol. 64, no. 9, 1290–130
54. Design and Development of Strain Gauge Pressure Transducer Working in High Pressure Range of 500 Mpa Using Autofrettage and Finite Element Method
Afaqul Zafer, Sanjay Yadav
International Journal Of Precision Engineering And Manufacturing
Vol. 19, No. 6, pp. 793-800
55. Design of a Stable DC Voltage Source and Computer Controlling of It Using an Indigenously Developed All-Digital Addressing-Cum Control Hardware
A. Roy, N. Batra, S. Majhi, S. Panja, A. Sen Gupta and **S. De**
Mapan-Journal Of Metrology Society Of India (June 2018) 33(2):139–14

CONTENTS

56. Design of MWCNT bucky paper reinforced PANI–DBSA–DVB composites with superior electrical and mechanical properties
Sushant Sharma, Vipin Kumar, Abhishek **K. Pathak**, Tomohiro Yokozeki,
Shailesh Kumar Yadav, **Vidya Nand Singh**, **S. R. Dhakate** and **Bhanu Pratap Singh**
J. Mater. Chem. C, 2018, 6, 12396–12406
57. Design optimisation of C ion implantation of α -Al₂O₃ for medical dosimetry
Mini Agarwal, S.K. Garg, K. Asokan, S. Thulkar, S. Chander, **M.K. Dalai**,
Pratik Kumar
Materials and Design 153 (2018) 317–326
58. Design, development and characterization of MEMS silicon diaphragm force sensor
Rajesh Kumar, Shanay Rab, B.D. Pant, S. Maji
Vacuum 153 (2018) 211–216
59. Detailed Dynamic Mechanical Analysis of Thermomechanically Stable Melt-Processed PEK–MWCNT Nanocomposites
Sampat Singh Chauhan, **Bhanu P. Singh**, Rajender Singh Malik, Pawan Verma,
Veena Choudhary
J. Mater. Chem. C, 2018, 6, 12396
60. Determination of band alignment at two-dimensional MoS₂/Si van der Waalsheterojunction
Neeraj Goel, Rahul Kumar, **Monu Mishra**, **Govind Gupta** and Mahesh Kumar
Journal of Applied Physics 123, 225301 (2018)
61. Determination of Fracture Parameters for Multiple Cracks of Laminated Composite Finite Plate
Amit Kumar Srivastava, P. K. Arora, Sharad Chandra Srivastava, **Harish Kumar** &
M. K. Lohumi
Appl Compos Mater (2018) 25:381–398
62. Determination of Trace Elements in High Purity Silver Granules Using Sector Field Inductively Coupled Plasma Mass Spectrometry
S. Swarupa Tripathy, **Swati**, **Rajiv K. Saxena** and **Nahar Singh**
Journal of Testing and Evaluation no. 4 (2018): 1489-1497
63. Development and Implementation of Current Tee for AC High Current Calibration
S. Luthra, **S. Kumari**, **B. Pal**, **S. Ahmad**, **P. S. Negi** and **V. N. Ojha**
Mapan-Journal Of Metrology Society Of India(March 2018) 33(1):29–32
64. Development and Realization of Iron–Carbon Eutectic Fixed Point at NPLI
U. Pant, **H. Meena** and **D. D. Shivagan**
Mapan-Journal Of Metrology Society Of India(September 2018) 33(3):201–208
65. Development of Measurement and Data Acquisition Setup Using LabVIEW for Sample Characterization up to Cryogenics Temperature
Anish Bhargav, Javed Ashraf and **V.N. Ojha**
Advances in Systems, Control and Automation. Lecture Notes in Electrical Engineering, vol 442. pp 225-236, 2018

CONTENTS

66. Dielectric and impedance properties of three dimension graphene oxide- carbon nanotube acrylonitrile butadiene styrene hybrid composites
Jeevan Jyoti, Ashok Kumar, S.R. Dhakate, Bhanu Pratap Singh
Polymer Testing 68 (2018) 456–466
67. Dielectric, magnetic and magnetoelectric properties of ferrite-ferroelectric based particulate composites
Yogesh Kumar, K L Yadav, **Jyoti Shah and R K Kotnala**
Mater. Res. Express 5 (2018) 085701
68. Dipolar Interaction and Magneto-Viscoelasticity in Nanomagnetic Fluid
Noorjahan, G. A. Basheed, Komal Jain, Saurabh Pathak and R. P. Pant
J. Nanosci. Nanotechnol. 2018, Vol. 18, No. 4
69. Directional growth, physicochemical and quantum chemical investigations on pyridinium 2-carboxylate:4-nitrophenol (P2C4N) single crystal for nonlinear optical (NLO) applications
V. Sivasubramani, Jesby George, M. Senthil Pandian, P. Ramasamy, P. Pounraj,
K. K. Maurya and D. Sajan
New J. Chem., 2018,42, 4261
70. Distinction between double electromagnetically induced transparency and double Autler–Townes splitting in RF-driven four-level ladder 87 Rb atomic vapor
Harish Singh Rawat, Satya Kesh Dubey and Vijay Narain Ojha
Journal of Physics B: Atomic, Molecular and Optical Physics
71. Distribution of VOCs in urban and rural atmospheres of subtropical India:Temporal variation, source attribution, ratios, OFP and risk assessment
Amit Kumar, Deepak Singh, Krishan Kumar, Braj Bihari Singh, Vinod Kumar Jain
Science of the Total Environment 613–614 (2018) 492–501
72. D– π –A– π –D Structured Diketopyrrolopyrrole-Based Electron Donors for Solution-Processed Organic Solar Cells
Bommaramoni Yadagiri, Kamatham Narayanaswamy, Ravulakollu Srinivasa Rao, Anirban Bagui, **Ram Datt, Vinay Gupta** and Surya Prakash Singh ,
ACS Omega 2018, 3, 13365–13373
73. Dual photoluminescence and charge transport in an alkoxy biphenyl benzoate ferroelectric liquid crystalline–graphene oxide composite
Dharmendra Pratap Singh, Benoit Duponchel, Yahia Boussoualem,
Kaushlendra Agrahari, Rajiv Manohar, Veeresh Kumar, **Renu Pasricha**,
Gonibasappa H. Pujar, Sanjeev R. Inamdar, Redouane Douali and Abdelylah Daoud
New J. Chem., 2018, 42, 16682--16693

CONTENTS

74. Dual-stimulus magnetoelectric energy harvesting
Zhaoqiang Chu, **Venkateswarlu Annapureddy**, MohammadJavad PourhosseiniAsl, Haribabu Palneedi, Jungho Ryu, and Shuxiang Dong
MRS Bulletin (Materials for Energy Harvesting) 43 (3) March 2018 , pp. 199-205
75. Dye sensitized solar cells using the electric field assisted spray deposited kesterite (Cu₂ZnSnS₄) films as the counter electrodes for improved performance
Sanjay Kumar Swami, Neha Chaturvedi, Anuj Kumar, Viresh Dutta
Electrochimica Acta 263 (2018) 26e33
76. Edge enriched cobalt ferrite nanorods for symmetric/asymmetric supercapacitive charge storage
Shubra Lalwani, Ram Bhagat Marichi, **Monu Mishra, Govind Gupta**, Gurmeet Singh, Raj Kishore Sharma
Electrochimica Acta 283 (2018) 708e717
77. Effect of Ag Ion Implantation on SPR of Cu-C 60 Nanocomposite Thin Film
P. Sharma, R. Singhal, R. Vishnoi, D. C. Agarwal, M. K. Banerjee, **S. Chand**, D. Kanjilal, D. K. Avasthi
Plasmonics (2018) 13:669–679
78. Effect of Ethylene Glycol Doping on Performance of PEDOT:PSS/ μ T-n-Si Heterojunction Solar Cell
Prashant Singh, Rohan Nakra, B. Sivaiah, Sanjay K. Sardana, P.Prathap, C.M.S. Rauthan, Sanjay K. Srivastava
AIP Conf. Proc. 1961, 020003-1–020003-4; doi.10.1063/1.5035196
79. Effect of HfO₂ nitridation on structural, optical and electrical properties of GaN films grown on HfO₂/Si(100) by laser molecular beam epitaxy
Ch Ramesh, P Tyagi, P Singh, A Kumar, M Senthil Kumar, S S Kushvaha ,
Mater. Res. Express 5 (2018) 095902
80. Effect of magnetic fullerene on magnetization reversal created at the Fe/C 60 interface
Srijani Mallik, Stefan Mattauch, **Manas Kumar Dalai**, Thomas Brückel & Subhankar Bedanta
Scientific Reports | (2018) 8:5515
81. Effect of Metal Contacts on a GaN/Sapphire-Based MSM Ultraviolet Photodetector
Shubhendra K. Jain, Shubin Krishna, Neha Aggarwal, Rahul Kumar, Abhiram Gundimeda, Sudhir C. Husale, Vinay Gupta
Journal of Electronic Materials, Vol. 47, No. 10, 2018
82. Effect Of Mg²⁺ Substitution On Structural And Magnetic Properties Of Nano Zinc Ferrite
Surjeet Chahal, Sonia Gaba, Ashok Kumar, **R. P. Pant**
AIP Conf. Proc. 2006, 030014-1–030014-5,doi.10.1063/1.5051270
83. Effect of multiband transport on charge carrier density fluctuations at the LaAlO₃/SrTiO₃ interface
Gopi Nath Daptary, **Pramod Kumar, Anjana Dogra** and Aavek Bid
Physical Review B 98, 035433 (2018)

CONTENTS

84. Effect of nitridation temperature on formation and properties of GaN nanowall networks on sapphire (0 0 0 1) grown by laser MBET
Ch. Ramesh, Prashant Tyagi, B.S. Yadav, S. Ojha, K.K. Maurya, M. Senthil Kumar, S.S. Kushvaha
Materials Science & Engineering B 231 (2018) 105–114
85. Effect of n-Type Doping on the Electron Transport of Polyfluorene
C. K. Pandey, Manisha Bajpai, **Ritu Srivastava**, Rakhee Malik,
Gyanendra Prakash Shukla, A. K. Katiyar, B. Narayan and Ravindra Dhar
AIP Conf. Proc. 2050, 020024-1–020024-7; <https://doi.org/10.1063/1.5083611>
86. Effect of oxygen pressure on structural and magnetic properties of Nd₂NiMnO₆ thin films grown on different substrates
Geetanjali Singh, Pooja Singh, R.J. Choudhary, **Anjana Dogra**
Journal of Alloys and Compounds 739 (2018) 586e589
87. Effect of Pressure on Bonding Environment and Carrier Transport of a-Si:H Thin Films Deposited Using 27.12 Mhz Assisted PECVD Process
Deepika Chaudhary, Mansi Sharma, S. Sudhakar, Sushil Kumar
Silicon (2018) 10:91–97 DOI 10.1007/s12633-015-9374-8
88. Effect of reduced traffic density on characteristics of particulate matter over Delhi
Vikas Goel, Sumit Kumar Mishra, Ajit Ahlawat, Chhemendra Sharma, N. Vijayan, S. R. Radhakrishnan, A. P. Dimri and **R. K. Kotnala**
Current Science, Vol. 115, No. 2, 25 July 2018
89. Effect of substrate temperature on structural and magnetic properties of c-axis oriented spinel ferrite Ni_{0.65}Zn_{0.35}Fe₂O₄ (NZFO) thin films
Dhiren K. Pradhan, Shalini Kumari, Dillip K. Pradhan, **Ashok Kumar**,
Ram S. Katiyar, R.E. Cohen
Journal Of Alloys And Compounds 766 (2018) 1074e1079
90. Effect of temperature on magnetic and impedance properties of Fe₃BO₆ of nanotubular structure with a bonded B₂O₃ surface layer
Kalpana Kumari, S. Ram and **R. K. Kotnala**
Journal of Applied Physics 123, 094101 (2018)
91. Effect of traps on the charge transport in semiconducting polymer PCDTBT
Mohd Taukeer Khan, **Vikash Agrawal**, Abdullah Almohammed, **Vinay Gupta**
Solid State Electronics 145 (2018) 49–53
92. Effects of light on ferroelectric polarization and leakage current
Hitesh Borkar, Ashok Kumar
Vacuum 153 (2018) 91e95
93. Efficient colloidal route to pure phase kesterite Cu₂ZnSnS₄(CZTS) nanocrystals with controlled shape and structure
Shefali Jain, Parul Chawla, Shailesh Narain Sharma, Dinesh Singh, N. Vijayan
Superlattices and Microstructures 119 (2018) 59e71

CONTENTS

94. Electrical and optical characterization of SiO_xN_y and SiO_2 dielectric layers and rear surface passivation by using $\text{SiO}_2/\text{SiO}_x\text{N}_y$ stack layers with screen printed local Al-BSF for c-Si solar cells
Nagarajan Balaji, Huong Thi Thanh Nguyen, Cheolmin Park, Minkyu Ju, Jayapal Raja, Somenath Chatterjee, **R. Jeyakumar**, Junsin Yi
Current Applied Physics 18 (2018) 107e113
95. Electrical Equivalent Loads of an End-cap Ion-trap
S. De, L. Sharma, N. Batra, A. Roy, K. Sharma, S. Panja and V. N. Ojha
DOI: 1.01109/CPEM.2018.8500916 ©2018 IEEE
96. Electrical microstructure properties of $0.9\delta\text{KNbO}_3 \cdot \text{P} \# 0:1 \text{BaNi}_{1-x}\text{Nb}_{1-x}\text{O}_{3-\delta}$ electroceramic
Rajender Prasad Tiwari, **Jyoti Shah**, **Ravinder Kumar Kotnala**, Balaji Birajdar
Journal of Alloys and Compounds 753 (2018) 642e645
97. Electrically conductive green composites based on epoxidized linseed oil and polyaniline: An insight into electrical, thermal and mechanical properties
Vinay Khandelwal, Sushanta K. Sahoo, **Ashok Kumar**, Gaurav Manik,
Composites Part B 136 (2018) 149–157
98. Electrochemical and degradation study of $\text{Sr}_{0.6}\text{Na}_{0.4}\text{SiO}_{3-\delta}$
Kapil Sood & **Jyoti Kaswan, Surinder P. Singh** & Truls Norby & Suddhasatwa Basu
Journal of Solid State Electrochemistry (2018) 22:3009–3013
99. Electrochemical genosensor based on carboxylated graphene for detection of water-borne pathogen
Nandita Jaiswal, Chandra Mouli Pandey, **Amrita Soni**, Ida Tiwari, Martin Rosillo-Lopez, Christoph G. Salzmann, Bansi Dhar Malhotra, **Gajjala Sumana**
Sensors & Actuators: B. Chemical 275 (2018) 312–321
100. Electrochemical genosensor based on template assisted synthesized polyaniline nanotubes for chronic myelogenous leukemia detection
Amrita Soni, Chandra Mouli Pandey, **Shipra Solanki**, **R.K. Kotnala**, **Gajjala Sumana**
Talanta 187 (2018) 379–389
101. Electron beam induced modifications in electrical properties of Poly (3,4-ethylenedioxythiophene):poly(styrenesulfonate) films
Nishant Chaudhary, Meetu Bharti, Ajay Singh, **D.K. Aswal**, S.P. Koiry, A.K. Debnath, S. Acharya
Vacuum 152 (2018) 243e247
102. Electron beam induced modifications of polyaniline silver nano-composite films: Electrical conductivity and H_2S gas sensing studies
Nishant Chaudhary, Ajay Singh, **D.K. Aswal**, P. Jha, S. Samanta, A.K. Chauhan, A.K. Debnath, S. Acharya, K. Shah, K.P. Muthe, S.C. Gadkari
Radiation Physics and Chemistry 153 (2018) 131–139
103. Electronic structure and magnetic properties of Ca_2IrO_4 , using first principles
Vijeta Singh, J.J. Pulikkotil
Computational Materials Science 153 (2018) 97–102

CONTENTS

104. Electronic structure of the PLD grown mixed phase MoS₂/GaN interface and its thermal annealing effect
Arun Barvat, Nisha Prakash, Gaurav Kumar, Dilip K. Singh, Anjana Dogra, Suraj P. Khanna, Prabir Pal
Current Applied Physics 18 (2018) 170e177
105. Electronic structure, defect properties, and hydrogen storage capacity of 2H-WS₂: A first-principles study
Durgesh Kumar Sharma, Sudhir Kumar, **Sushil Auluck**
International Journal of Hydrogen Energy 43 (2018) 23126 e23134
106. Elucidating iron doping induced n- to p- characteristics of Strontium titanate based ethanol sensors
Neha Sarin, **Monu Mishra, Govind Gupta**, Ivan P. Parkin, Vandna Luthra
Current Applied Physics 18 (2018) 246e253
107. Elucidating the mechanisms behind thermoelectric power factor enhancement of poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate) flexible films
Meetu Bharti, Ajay Singh, Soumen Samanta, A.K. Debnath, Kazuhiro Marumoto, **D.K. Aswal**, K.P. Muthe, S.C. Gadkari
Vacuum 153 (2018) 238–247
108. EMI shielding properties of laminated graphene and PbTiO₃ reinforced poly(3,4-ethylenedioxythiophene) nanocomposites
Jasvir Dalal, Sushma Lather, Anjali Gupta, Sajjan Dahiya, A.S. Maan, **Kuldeep Singh, S.K. Dhawan**, Anil Ohlan
Composites Science and Technology 165 (2018) 222–230
109. Engineering novel synthetic strategy to develop mesocarbon microbeads for multi-functional applications
Anisha Chaudhary, Satish Teotia, Rajeev Kumar, K. Ramesha, **Sanjay R Dhakate, Saroj Kumari**
Mater. Res. Express 5 (2018) 045011
110. Enhanced anticorrosive properties of tailored poly(aniline-anisidine)/chitosan/SiO₂ composite for protection of mild steel in aggressive marine conditions
Pradeep Sambyal, Gazala Ruhi, **S.K. Dhawan**, B.M.S. Bisht, S.P. Gairola
Progress in Organic Coatings 119 (2018) 203–213
111. Engineering bright fluorescent nitrogen-vacancy (NV) nano-diamonds: Role of low-energy ion-irradiation parameters
Ravi Kumar, Priyanka Pandit, **Prabir Pal, S. R. Dhakate, R. P. Pant**, Raj Kumar, Devesh K. Avasthi, and Dilip K. Singh
AIP Advances 8, 085023 (2018)
112. Enhanced electrocatalytic activity of reduced graphene oxide-Os nanoparticle hybrid films obtained at a liquid/liquid interface
K. Bramhaiah, Indu Pandey, **Vidya N.Singh**, C. Kavitha, Neena S. John
J Nanopart Res (2018) 20: 56

CONTENTS

113. Enhanced field effect passivation of c-Si surface via introduction of trap centers: Case of hafnium and aluminium oxide bilayer films deposited by thermal ALD
Jagannath Panigrahi, Vandana, Rajbir Singh, P.K.Singh
Solar Energy Materials and Solar Cells 188 (2018) 219–227
114. Enhanced luminescence efficiency of wet chemical route synthesized InP-based quantum dots by a novel method: Probing the humidity sensing properties
Akanksha Singh, Chavvi Sharma, Mahesh Kumar, Reena Kumari, Ritu Srivastava, Shailesh Narain Sharma
Journal of Luminescence 198 (2018) 108–116
115. Enhanced photovoltaic performance of PEDOT:PSS/Si solar cells using hierarchical light trapping scheme
Prashant Singh, Sanjay K. Srivastava, B. Sivaiah, P. Prathap, C.M.S. Rauthan
Solar Energy 170 (2018) 221–233
116. Enhanced Self-Biased Magnetoelectric Coupling in Laser-Annealed Pb(Zr,Ti)O₃ Thick Film Deposited on Ni Foil
Haribabu Palneedi, Deepam Maurya, Liwei D. Geng, Hyun-Cheol Song, Geon-Tae Hwang, Mahesh Peddigari, **Venkateswarlu Annapureddy**, Kyung Song, Yoon Seok Oh, Su-Chul Yang, Yu U. Wang, Shashank Priya and Jungho Ryu
ACS Appl. Mater. Interfaces 2018, 10, 11018–11025
117. Enhanced thermomechanical and electrical properties of multiwalled carbon nanotube paper reinforced epoxy laminar composites
Sushant Sharma, Bhanu Pratap Singh, Sampat Singh Chauhan, **Jeevan Jyoti**, Abhishek Kr. Arya, S.R. Dhakate, Vipin Kumar, Tomohiro Yokozeki
Composites: Part A 104 (2018) 129–138
118. Enhancement in thermoelectric performance of bulk CrSi₂ dispersed with nanostructured SiGe nano-inclusions
Naval Kishor Upadhyay, L.A. Kumaraswamidhas, **Bhasker Gahtori, Sivaiah Bathula, Saravanan Muthiah, Radhey Shyam, Nagendra Singh Chauhan, Ruchi Bhardwaj, Ajay Dhar**
Journal of Alloys and Compounds 765 (2018) 412e417
119. Enhancement of Y123 dye-sensitized solar cell performance using plasmonic gold nanorods
P. S. Chandrasekhar, Piyush K. Parashar, **Sanjay Kumar Swami**, Viresh Dutta and Vamsi K. Komarala *Phys. Chem. Chem. Phys.*, 2018, 20, 9651
120. Environment-Friendly Mesoporous Magnetite Nanoparticles-Based Hydroelectric Cell
Shipra Jain, Jyoti Shah, S. R. Dhakate, Govind Gupta, C. Sharma and R. K. Kotnala
J. Phys. Chem. C 2018, 122, 5908–5916
121. Epitaxial growth of GaN nanostructure by PA-MBE for UV detection application
Lalit Goswami, Rajeshwari Pandey, **Govind Gupta**
Applied Surface Science 449 (2018) 186–192
122. Estimation of the ion-trap assisted electrical loads and resulting BBR shift
Lakhi Sharma, A. Roy, S. Panja, V. N. Ojha & S. De
Scientific Reports (2018) 8:16884 | DOI:10.1038/s41598-018-35234-5

CONTENTS

123. Evaluation of Humidity Sensor Based on PVP-RGO Nanocomposites
Bhagyashri Bhangare, Shweta Jagtap, Niranjana Ramgir, Rupali Waichal, K. P. Muthe, S. K. Gupta, Sanjay C. Gadkari, **D. K. Aswal** and Suresh Gosavi
IEEE sensors journal, vol. 18, no. 22, november 15, 2018

124. Evaluation of Tunable Specific Absorption Rate of Magnetic Nanoparticles for Biomedical Applications
Satya Kesh Dubey and Naina Narang
2018 *IEEE* doi: 10.1109/cemi.2018.8610606

125. Evaluation of uncertainty of measurement of shadow mask dot pitch using different approaches
Girija Moona, Rina Sharma and Harish Kumar
Transactions of the Institute of Measurement and Control 2018, Vol. 40(7) 2428–2435

126. Evolution of Intrinsic and Magnetic Field-Induced Magnetic Anisotropies in Strongly Phase-Separated Manganite Thin Films
Akash Yadav, Suman Kumari, Shital Chauhan, Sandeep Singh, P. K. Siwach, Anurag Gupta, H. K. Singh
Journal of Superconductivity and Novel Magnetism (2018) 31:2969–2975

127. Exceeding milli-watt powering magneto-mechano-electric generator for standalone-powered electronics
Venkateswarlu Annapureddy, Suok-Min Na, Geon-Tae Hwang, Min Gyu Kang, Rammohan Sriramdas, Haribabu Palneedi, Woon-Ha Yoon, Byung-Dong Hahn, Jong-Woo Kim, Cheol-Woo Ahn, Dong-Soo Park, Jong-Jin Choi, Dae-Yong Jeong, Alison B. Flatau, Mahesh Peddigari, Shashank Priya, Kwang-Ho Kim and Jungho Ryu
Energy Environ. Sci., 2018, 11, 818

128. Excellent EMI shielding performance and thermal insulating properties in lightweight, multifunctional carbon-cenosphere composite foams
Rajeev Kumar, D.P. Mondal, **Anisha Chaudhary**, Muhamed Shafeeq, **Saroj Kumari**
Composites Part A 112 (2018) 475–484

129. Excellent mechanical properties of long multiwalled carbon nanotube bridged Kevlar fabric
Sushant Sharma, Abhishek K. Pathak, Vidya Nand Singh, Satish Teotia S.R.Dhakate, B.P.Singh
Carbon 137 (2018) 104e117 doi.10.1016/j.carbon.2018.05.017

130. Experimental investigation of variations in morphology, composition and mixing-state of boundary layer aerosol: A balloon based study over urban environment (New Delhi)
S.K. Mishra, A. Ahlawat, D. Khosla, C. Sharma, M.V.S.N. Prasad, Sukhvir Singh, B. Gupta, Tulsii, D. Sethi, P.R. Sinha, D.K. Ojha, A.Wiedensohler, **R.K. Kotnala**
Atmospheric Environment 185 (2018) 243–252

131. Exploration of Trap Levels in GaN and Al 0.2 Ga 0.8 N Layers by Temperature-Dependent Photoconductivity Measurement
Nisha Prakash, Gaurav Kumar, Arun Barvat, Kritika Anand, B. Choursia, Prabir Pal and Suraj P. Khanna
Materials Today: Proceedings 5 (2018) 2132–2138

CONTENTS

132. Exploring deep defect state impact on open circuit voltage of conventional and inverted organic solar cells
Aniket Rana, Amit Kumar, Suresh Chand, and Rajiv K. Singh
journal of applied physics 124, 103101 (2018)
133. Exploring the Magnetoelectric Coupling at the Composite Interfaces of FE/FM/FE Heterostructures Dhiren K. Pradhan , Shalini Kumari , Rama K. Vasudevan, Evgheni Strelcov, Venkata S. Puli, Dillip K. Pradhan , **Ashok Kumar**, J. Marty Gregg, A. K. Pradhan, Sergei V. Kalinin, Ram S. Katiyar
Scientific Reports | (2018) 8:17381
134. Fabrication and characterization of W-Cu functionally graded material by spark plasma sintering process
A.K. Chaubey, Rajat Gupta, Rohit Kumar, Bharat Verma, Shailesh Kanpara, **Sivaiah Bathula**, S.S. Khirwadkar, Ajay Dhar
Fusion Engineering and Design 135 (2018) 24–30
135. Fabrication of a p–n Heterojunction Using Topological Insulator Bi₂Te₃–Si and Its Annealing Response
Faizan Ahmad, Rashmi Singh, Parsanna Kumar Misra, Naresh Kumar, **Rachna kumar** and Pramod Kumar
Journal of Electronic Materials, Vol. 47, No. 12, 2018
136. Fabrication of chemical sensor for organochlorine pesticide detection using colloidal gold nanoparticles
Puja Goel, **Manju Arora**
MRS Communications Volume 8, Issue 3 September 2018 , pp. 1000-1007
137. Fabrication of sensitive bioelectrode based on atomically thin CVD grown graphene for cancer biomarker detection
Vijay K. Singh, Saurabh Kumar, Sumit Kumar Pandey, Saurabh Srivastava, Monu Mishra, **Govind Gupta**, B.D. Malhotra, R.S. Tiwari, Anchal Srivastava
Biosensors and Bioelectronics 105 (2018) 173–181
138. Facile fabrication of p- and n-type half-Heusler alloys with enhanced thermoelectric performance and low specific contact resistance employing spark plasma sintering
Nagendra S. Chauhan, Sivaiah Bathula, Avinash Vishwakarma, Ruchi Bhardwaj, Kishor Kumar Johari, Bhasker Gahtori, Ajay Dhar
Materials Letters 228 (2018) 250–253
139. Facile synthesis of earth-abundant and non-toxic p-type Si₉₆B₄/SiC pnanocomposites with enhanced thermoelectric performance
Naval Kishor Upadhyay, L.A. Kumaraswamidhas, **Bhasker Gahtori, Saravanan Muthaiah, Sivaiah Bathula, Radhey Shyam, Ajay Dhar**,
Materials Science in Semiconductor Processing 75 (2018) 234–238
140. Facile synthesis of nanostructured n-type SiGe alloys with enhanced thermoelectric performance using rapid solidification employing melt spinning followed by spark plasma sintering
Avinash Vishwakarma, Sivaiah Bathula, Nagendra S. Chauhan, Ruchi Bhardwaj, Bhasker Gahtori, Avanish K. Srivastava, **Ajay Dhar**
Current Applied Physics 18 (2018) 1540–1545

CONTENTS

141. Facile Synthesis of Semiconducting Ultrathin Layer of Molybdenum Disulfide
Sarvottam K. Jha, Reetu Kumari, Shubham Choudhary, Puspendu Guha, P. V. Satyam, Brajesh S. Yadav, Zainab Naqvi, **S. S. Kushvaha**, R. K. Ratnesh, S. Mehata, Aditya Jain, Amrish K. Panwar, Fouran Singh and Pawan K. Tyagi
Journal of Nanoscience and Nanotechnology Vol. 18, 614–622, 2018
142. Films and dispersions of reduced graphene oxide based Fe₂O₃ nanostructure composites: Synthesis, magnetic properties and electrochemical capacitance
K. Bramhaiah, Indu Pandey, **Vidya N. Singh**, Nagaiah Kambhala, S. Angappane, Neena S. John
Materials Chemistry and Physics 209 (2018) 1e9
143. Comparison of measurement capability with 100 µmol/mol of Carbon monoxide in nitrogen
Jeongsoon Lee, JinBok Lee, Jeongsik Lim, Tanıl Tarhan, Hsin-Wang Liu, and **Shankar G. Aggarwal**
Jeongsoon Lee et al 2018 Metrologia 55 08007
144. CCM.V-K3: CCM Key Comparison of Viscosity
Y. Fujita, T. Zubler, J. Mastropierro, S. Trujillo, I Cekieli, D. Malta, S. Lorefice, P. Ballereau, P. A. Meury, Z. Zhang, H. Wolf, D. Trochta, O. Sakarya, I. Van Andel, C. Buchner, I. Spohr, A. Furtado, B. Lugadiru, M. Mekawy, D. Jonker, **A. Kumar**, Z. Anuar
Metrologia, Volume 55, Technical Supplement, 2018
145. Final report, Ongoing Key Comparison BIPM.QM-K1, Ozone at ambient level, comparison with NPLI, (February 2018)
Joële Viallon, Philippe Moussay, Faraz Idrees, Robert Wielgosz, **Chhemendra Sharma**, **Radhakrishnan Soman Radha** and **Devesh Kumar Shukla**
Metrologia, Volume 55, Technical Supplement, 201
146. Five-year measurements of ambient ammonia and its relationships with other trace gases at an urban site of Delhi, India
Saraswati, S. K. Sharma, T. K. Mandal
Meteorol Atmos Phys (2018) 130:241–257
147. Flexible and free-standing films containing cobalt-doped nanocrystalline zinc oxide dispersed in polyvinylidene fluoride matrix: synthesis and characterization
Rajkumar Dey, Ritamay Bhunia, Shamima Hussain, **Bibhash Ranjan Chakraborty**, Radhaballav Bhar, Arun Kumar Pal
Polym. Bull. (2018) 75:307–325
148. Flux Free Single Crystal Growth and Characterization of FeTe_{1-x}S_x (x=0.00 and 0.10) Crystals
P.K. Maheshwari and V.P.S. Awana
AIP Conf. Proc. 1953, 070010-1–070010-4
149. Functionalized MoS₂ nanosheets assembled microfluidic immunosensor for highly sensitive detection of food pathogen
Chandan Singh, Md. Azahar Ali, Vinod Kumar, **Razi Ahmad**, **Gajjala Suman**
Sensors and Actuators B 259 (2018) 1090–1098

CONTENTS

150. GaN-UV photodetector integrated with asymmetric metal semiconductor metal structure for enhanced responsivity
Shubhendra Kumar Jain, Neha Aggarwal, Shibin Krishna, Rahul Kumar, Sudhir Husale, Vinay Gupta, **Govind Gupta**
Journal of Materials Science: Materials in Electronics (2018) 29:8958–8963
151. Giant enhancement in ferroelectric polarization under illumination
Hitesh Borkar, Vaibhav Rao, M. Tomar, Vinay Gupta, J.F. Scott, **Ashok Kumar**
Materials Today Communications 14 (2018) 116–123
152. Graphene oxide–chloroquine nanoconjugate induce necroptotic death in A549 cancer cells through autophagy modulation
Braham D Arya, Sandeep Mittal, **Prachi Joshi,** Alok K Pandey, Jaime E, Ramirez-Vick, **Surinder P Singh**
Nanomedicine (Lond.) (2018) 13(18), 2261–2282
153. Graphene quantum dots-based nano-biointerface platform for food toxin detection
Hema Bhardwaj, Chandan Singh, R. K. Kotnala, Gajjala Sumana
Analytical and Bioanalytical Chemistry (2018) 410:7313–7323
154. Graphene synthesized using filtered cathodic vacuum arc technique and its applications
O.S. Panwar, **A.K. Kesarwani, S.R. Dhakate,** B.S.Satyanarayana
Vacuum 153 (2018) 262–266
155. Graphene-filled PDMS Composite for Tactile Sensing of Surgical Graspers
John-John Cabibihan, Kishor Kumar Sadasivuni, Anas Tahir, **Sadiya Waseem,** Nikhil Navkar, Julien Abinshed and Abdullah Al-Ansari
10.1109/NANO.2018.8626289©2018 IEEE
156. Green synthesis, characterization and antimicrobial activity of zinc oxide quantum dots using *Eclipta alba*
Akhilesh Kumar Singh, Priti Pal, **Vinay Gupta,** Thakur Prasad Yadav, Vishu Gupta, Satarudra Prakash Singh
Materials Chemistry and Physics 203 (2018) 40e48
157. Growth and Characterization of Highly Conducting Al- Doped ZnO (AZO) Thin Films for Optoelectronic Applications
Sanjay K Sardana, Anil Singh, **Sanjay K Srivastava** and Dinesh K Pandya
AIP Conf. Proc. 1961, 020001-1–020001-5;
158. Growth mechanism and optical properties of Ge nanocrystals embedded in a GeO_x matrix
Vijayarangamuthu Kalimuthu, Praveen Kumar, **Mahesh Kumar,** Shyama Rath
Applied Physics A (2018) 124:712
159. Growth of MoS₂–MoO₃ Hybrid Microflowers via Controlled Vapor Transport Process for Efficient Gas Sensing at Room Temperature
Rahul Kumar, Neeraj Goel, **Monu Mishra, Govind Gupta,** Mattia Fanetti, Matjaz Valant, and Mahesh Kumar
Adv. Mater. Interfaces 2018, 5, 1800071

CONTENTS

160. Heat Capacity and Mössbauer Study of Self-Flux Grown FeTe Single Crystal
P. K. Maheshwari, V. Raghavendra Reddy, **V. P. S. Awana**
Journal of Superconductivity and Novel Magnetism (2018) 31:1659–1663
161. High field (up to 140 kOe) angle dependent magneto transport of Bi₂Te₃ single crystals
Rabia Sultana, **P K Maheshwari**, Brajesh Tiwari and **V P S Awana**
Mater. Res. Express 5 (2018) 016102
162. High Temperature Dielectric And Impedance Spectroscopic Studies Of Multiferroic Yb_{1-x}Ho_xMnO₃ (x = 0.1) Ceramics
Sheshamani Singh, **Ravikant**, **Ashok Kumar** and Anil K Bhatnagar
dae solid state physics symposium 2017
163. High temperature dielectric studies of indium-substituted NiCuZn nanoferrites
Mohd. Hashim, M. Raghasudha, **Jyoti Shah**, Sagar E. Shirsath, D. Ravinder, Shalendra Kumar, Sher Singh Meena, Pramod Bhatt, Alimuddin Ravi Kumar, **R.K. Kotnala**
Journal of Physics and Chemistry of Solids 112 (2018) 29–36
164. High-Field Magneto-Conductivity Analysis of Bi₂Se₃ Single Crystal
Rabia Sultana, Ganesh Gurjar, Patnaik, V. P. S. Awana
Journal of Superconductivity and Novel (2018) 31:3075–3078
165. Highly effective adsorption of crystal violet dye from contaminated water using graphene oxide intercalated montmorillonite nanocomposite
Chandni Puri, **Gajjala Sumana**
Applied Clay Science 166 (2018) 102–112
166. Highly efficient field emission properties of radially aligned carbon nanotubes
Prashant Tripathi, **Bipin Kumar Gupta**, Ashish Bhatnagar, C. R. P. Patel, Prashant K. Banker, Dattatray J. Late, Mahendra A. More, N. P. Lalla, D. M. Phase, R. J. Choudhary, M. A. Shaz, P. M. Ajayan and O. N. Srivastava
Mater. Chem. C, 2018,6, 6584
167. Highly efficient fluorescence quenching with chemically exfoliated reduced graphene oxide
Shubhda Srivastava, **Thanikachalam Devarajan Senguttuvan**, **Bipin Kumar Gupta**
Journal of Vacuum Science & Technology B 36, 04G104
168. Highly Efficient, Chemically Stable, and UV/Blue-Light-Excitable Biluminescent Security Ink to Combat Counterfeiting
Akhilesh Kumar Singh, **Satbir Singh** and **Bipin Kumar Gupta**
ACS Appl. Mater. Interfaces 2018, 10, 44570–44575
169. Highly Luminescent Dual Mode Polymeric Nanofiber-Based Flexible Mat for White Security Paper and Encrypted Nanotaggant Applications
Amit Kumar Gangwar, **Ashish Gupta**, **Garima Kedawat**, **Pawan Kumar**, **Bhanu Pratap Singh**, **Nidhi Singh**, Avanish K. Srivastava, **Sanjay R. Dhakate** and **Bipin Kumar Gupta**
Chem. Eur. J. 2018, 24, 9477 – 9484

CONTENTS

170. Highly selective and reversible NO₂ gas sensor using vertically aligned MoS₂ flake networks
Rahul Kumar, Pawan K Kulriya, **Monu Mishra**, Fouran Singh, **Govind Gupta** and Mahesh Kumar
Nanotechnology 29 (2018) 464001 (9pp)
171. High-performance field emission device utilizing vertically aligned carbon nanotubes-based pillar architectures
Bipin Kumar Gupta, Garima Kedawat, Amit Kumar Gangwar, Kanika Nagpal, Pradeep Kumar Kashyap, Shubhda Srivastava, Satbir Singh, Pawan Kumar, Sachin R. Suryawanshi, Deok Min Seo, Prashant Tripathi, Mahendra A. More, O. N. Srivastava, Myung Gwan Hahm and Dattatray J. Late
AIP Advances 8, 015117 (2018)
172. High-yield synthesis and liquid-exfoliation of two-dimensional belt-like hafnium disulphide
Harneet Kaur, Sandeep Yadav, Avanish K. Srivastava, Nidhi Singh, Shyama Rath, Jörg J. Schneider, Om P. Sinha and Ritu Srivastava
Nano Research 2018, 11(1): 343–353
173. Hikami-Larkin-Nagaoka (HLN) Treatment of the Magneto-Conductivity of Bi₂Te₃ Topological Insulator
Rabia Sultana, Ganesh Gurjar, P. Neha, S. Patnaik, V. P. S. Awana
Journal of Superconductivity and Novel Magnetism (2018) 31:2287–229
174. Hydrostatic pressure-induced huge enhancement of critical current density and flux pinning in Fe_{1-x}Co_xSe_{0.5}Te_{0.5} single crystals
Lina Sang, Babar Shabbir, **Pankaj Maheshwari**, Wenbin Qiu, Zongqing Ma, Shixue Dou, Chuanbing Cai, **V P S Awana** and Xiaolin Wang
Supercond. Sci. Technol. 31 (2018) 025009 (9pp)
175. Hysteretic Photochromic Switching (HPS) in Doubly Doped GaN(Mg):Eu—A Summary of Recent Results
Paul R. Edwards, Kevin P. O'Donnell, **Akhilesh K. Singh**, Douglas Cameron, Katharina Lorenz, Mitsuo Yamaga, Jacob H. Leach, Menno J. Kappers and Michal Boćkowski
Materials 2018, 11, 1800
176. Impact of rotamer diversity on the self-assembly of nearly isostructural molecular semiconductors
Caitlin McDowell, Kamatham Narayanaswamy, Bommaramoni Yadagiri, Thumuganti Gayathri, Martin Seifrid, **Ram Datt**, Sean M. Ryno, Michael C. Heifner, **Vinay Gupta**, Chad Risko, Surya Prakash Singh and Guillermo C. Bazan
J. Mater. Chem. A, 2018, 6,383
177. Impedance spectroscopic study on microwave sintered (1 - x)Na_{0.5}Bi_{0.5}TiO_{3-x} - BaTiO₃ ceramics
Hari Sankar Mohanty, **Ashok Kumar**, Balaram Sahoo, Pawan Kumar Kurliya, Dillip K. Pradhan
Journal of Materials Science: Materials in Electronics (2018) 29:6966–6977

CONTENTS

178. Impedance Spectroscopy of Aqueous Solution Samples of Different Glucose Concentrations for the Exploration of Non-Invasive-Continuous-Blood-Glucose-Monitoring
Satish, K. Sen and S. Anand
Mapan-Journal Of Metrology Society Of India (2018) 33(2):185– 190
179. Improved magneto-viscoelasticity of cross-linked PVA hydrogels using magnetic nanoparticles
Noorjahan, Saurabh Pathak, Komal Jain, R.P. Pant
Colloids and Surfaces A 539 (2018) 273–279
180. Improved performance of organic solar cells with solution processed hole transport layer
Ranoo Bhargav, S.P. Gairola, **Asit Patra, Samya Naqvi, S.K. Dhawan**
Optical Materials 80 (2018) 138–142
181. Influence of active layer thickness on electrical properties of P3HT/n-Si based hybrid heterostructure
Abhiram Gundimeda, Monu Mishra, Razi Ahmad, Ritu Srivastava,
Umesh K Dwivedi & **Govind Gupta** *Indian J of Pure & App Phy 56(06) June 2018*
182. Influence of fabrication processes on transport properties of superconducting niobium nitride nanowires
Manju Singh, Rishu Chaujar, Sudhir Husale, S. Grover, Amit P. Shah,
Mandar M. Deshmukh, **Anurag Gupta, V. N. Singh, V. N. Ojha, D. K. Aswal and R. K. Rakshit**
Current Science, Vol. 114, no. 7, 10 April 2018
183. Influence of growth temperature on structural and optical properties of laser MBE grown epitaxial thin GaN films on a-plane sapphire
Chodipilli Ramesh and Prashant Tyagi, Sandeep Singh, Preetam Singh,
Govind Gupta, Kamlesh Kumar Maurya, Kuchibhotla Murali Krishna Srivatsa,
Muthusamy Senthil Kumar, Sunil Singh Kushvaha
J. Vac. Sci. Technol. B 36(4), Jul/Aug 2018
184. Influence of La 3+ ion doping on physical properties of magnesium nanoferrites for microwave absorption application
Sonia Gaba, Ashok Kumar, Pawan S. Rana, **Manju Arora**
Journal of Magnetism and Magnetic Materials 460 (2018) 69–77
185. Influence of Li co-doping on structural property of sol-gel derived terbium doped zinc oxide nanoparticles
Pawan Kumar, A.K. Yadav, **Amish G. Joshi, D. Bhattacharyya, S.N. Jha,**
Praveen C.Pandey
Materials Characterization 142 (2018) 593–601
186. Influence of rare earth ion doping (Ce and Dy) on electrical and magnetic properties of cobalt ferrites
Mohd. Hashim, M. Raghasudha, Sher Singh Meena, **Jyoti Shah, Sagar E. Shirsath,**
Shalendra Kumar, D. Ravinder, Pramod Bhatt, Alimuddin, Ravi Kumar, **R.K. Kotnala**
Journal of Magnetism and Magnetic Materials 449 (2018) 319–327

CONTENTS

187. Influence of sintering temperature on the electrical and thermal properties of bulk samples of Pr_{2/3} Sr_{1/3} MnO_{3-δ}
Ramesh Chandra Bhatt, Mamatha D. Daivajna, Ashok Rao, Shyam Prasad K, Riya Thomas, B.S. Nagaraja, **V.P.S. Awana**, C.F. Lin, B. Ramachandran, Y.K. Kuo,
Physica B: Condensed Matter 545 (2018) 141–145
188. Influence of sulfurization time on two step grown SnS thin films
M. Gurubhaskar, Narayana Thota, M. Raghavender, G. Hema Chandra, **P. Prathap**,
Y.P. Venkata Subbaiah
Vacuum 155 (2018) 318–324
189. Influence of temperature and Al/N ratio on structural, chemical & electronic properties of epitaxial AlN films grown via PAMBE
Shubhendra Kumar Jain, Monu Mishra, Neha Aggarwal, Shubin Krishna, Bhasker Gahtori, Akhilesh Pandey, **Govind Gupta** ,
Applied Surface Science 455 (2018) 919–923
190. Insight into crystal-structure dependent charge separation and photo-redox catalysis: A combined experimental and theoretical study on Bi(IO₃)₃ and BiOIO₃
Hongwei Huang, Fang Chen, Ali Hussain Reshak, **Sushil Auluck**, Yihe Zhang,
Applied Surface Science 458 (2018) 129–138
191. Interfacial behavior of confined mesogens at smectic-C*–water boundary
Achu Chandran, P. K. Khanna, **D. Haranathand**, **Ashok M. Biradar**
physical review e 97, 022701 (2018)inter
192. Investigating the influence of charge transport on the performance of PTB7:PC 71 BM based organic solar cells
Mihirsinh Chauhan, **Abhishek Sharma**, Jessica Patel, **M. Aatif**, Suresh Chand,
Manoj Kumar Pandey, Manoj Kumar, **J. P. Tiwari** and Brijesh Tripathi
Phys. Chem. Chem. Phys., 2018, 20, 17304
193. Investigating unipolar switching in Niobium oxide resistive switches: Correlating quantized conductance and mechanism
Sweety Deswal, Ashok Kumar and Ajeet Kumar
AIP Advances 8, 085014 (2018)
194. Investigation of annealing effects on TiO₂ nanotubes synthesized by a hydrothermal method for hybrid solar cells
Sumit Kumar, Tanvi Vats, **Shailesh Narayan Sharma**, Jitendra Kumar
Optik - International Journal for Light and Electron Optics 171 (2018) 492–500

CONTENTS

195. Investigation of dynamic optical behavior of CeO₂ thin film using terahertz spectroscopy
Mukesh Jewariya, Preetam Singh, Girija Moona, Gauri Shanker, K.M.K. Srivatsa, In Hyung Baek, Young Uk Jeong
Optical Materials 85 (2018) 295–297
196. Investigation on spatiotemporal distribution of aerosol optical properties over two oceanic regions surrounding Indian subcontinent during summer monsoon season
Chaturvedula Viswanatha Vachaspati, Gurramkonda Reshma Begam, Yadiki Nazeer Ahammed, Kanike Raghavendra Kumar, **Tuhin Kumar Mandel**, Kotalo Rama Gopal & Rajuru Ramakrishna Reddy
Environmental Science And Pollution Research (2018) 25:27039–27058
197. Investigation on sub nano-crystalline silicon thin films grown using pulsed PECVD process
Mansi Sharma, Deepika Chaudhary, S. Sudhakar, Sandesh Jadkar, **Sushil Kumar**
Materials Science in Semiconductor Processing 80 (2018) 167–173
198. Investigations of structural, chemical and physical properties of natural lac and its reinforced composites
Sukhvir Singh, Vandana Singh, **Ashish Kumar Gupta**
Indian Journal of Pure & Applied Physics Vol. 56, January 2018, pp. 69-75
199. Key optoelectronic properties of Diiodo-bis(carbamide)-zinc(II): An experimental and computational investigation
Mohd. Shkir, Ahmad Irfan, S. AlFaify, V. Ganesh, **M. Arora**, Shabbir Muhammad, Abdullah G. Al-Sehemi, I.S. Yahia
Journal of Molecular Structure 1156 (2018) 146e155
200. Langmuir–Blodgett Nanoassemblies of the MoS₂–Au Composite at the Air–Water Interface for Dengue Detection
Shipra Solanki, Amrita Soni, M. K. Pandey, Ashok Biradar and Gajjala Sumana
ACS Appl. Mater. Interfaces 2018, 10, 3020–3028
201. Large bandgap reduced graphene oxide (rGO) based n-p + heterojunction photodetector with improved NIR performance
Manjri Singh, Gaurav Kumar, Nisha Prakash, Suraj P Khanna, Prabir Pal and Surinder P Singh
Semicond. Sci. Technol. 33 (2018) 045012 (9pp)
202. Large Size Crystal Growth, Photoluminescence, Crystal Excellence, and Hardness Properties of In-Doped Cadmium Zinc Telluride
Mohd. Shkir, V. Ganesh, Salem AlFaify, Andrés Black, Ernesto Dieguez and **K.K. Maurya**
Cryst. Growth Des. 2018, 18, 2046–2054
203. Laser Irradiation of Metal Oxide Films and Nanostructures: Applications and Advances
Haribabu Palneedi, Jung Hwan Park, Deepam Maurya, Mahesh Peddigari, Geon-Tae Hwang, **Venkateswarlu Annapureddy**, Jong-Woo Kim, Jong-Jin Choi, Byung-Dong Hahn, Shashank Priya, Keon Jae Lee and Jungho Ryu
Adv. Mater. 2018, 30, 1705148

CONTENTS

204. Levels and sources of organic compounds in fine ambient aerosols over National Capital Region of India
Shivani & Ranu Gadi, **Sudhir Kumar Sharma, Tuhin Kumar Mandal,**
Ravi Kumar, Sharma Mona, Sachin Kumar, Sanchit Kumar
Environmental Science and Pollution Research (2018) 25:31071–31090
205. Light intensity and spectral dependence characteristics of silicon nanowire/PEDOT:PSS heterojunctions solar cells
Sanjay K. Srivastava, M. Yameen, C.M.S. Rauthan, P.K. Singh
Materials Today: Proceedings 5 (2018) 23302–23310
206. Light intensity dependent characteristics of micro-textured Si/ PEDOT:PSS heterojunction solar cell
Prashant Singh, Sanjay K. Srivastava, B. Sivaiah, Subha Laxmi, P. Prathap, C. M. S. Rauthan
Journal of Materials Science: Materials in Electronics (2018) 29:5087–5097
207. Local symmetry breaking in SnO₂ nanocrystals with cobalt doping and its effect on optical properties
S. Roy, **Amish G. Joshi,** S. Chatterjee and Anup K. Ghosh
Nanoscale, 2018, 10, 10664
208. Longitudinal Characteristics of Martian Electron Density Profiles: MGS Observations
A. K. Upadhyaya and Sumedha Gupta
Space Physics, 123, 8698–8713.
209. Long-term fertilization effects on soil organic carbon sequestration in an Inceptisol
Avijit Ghosh, Ranjan Bhattacharyya, M.C. Meena, B.S. Dwivedi, Geeta Singh,
R. Agnihotri, C. Sharma
Soil & Tillage Research 177 (2018) 134–144
210. Low reflecting hierarchically textured silicon by silver assisted chemical etching for potential solar cell application
Prashant Singh, Sanjay K. Srivastava, Vijay Prajapati, B. Sivaiah, C.M.S. Rauthan, P.K. Singh
Materials Today: Proceedings 5 (2018) 23258–23267
211. Magnetism by embedding 3d transition metal atoms into germanene
Durgesh Kumar Sharma, Sudhir Kumar and **Sushil Auluck**
J. Phys. D: Appl. Phys. 51 (2018) 225006 (7pp)
212. Magneto-electric coupling and improved dielectric constant of BaTiO₃ and Fe-rich (Co_{0.7}Fe_{2.3}O₄) ferrite nano-composites
Anil S. Gaikwad, Sagar E. Shirsath, Santosh R. Wadgane, R.H. Kadam,
Jyoti Shah, R.K. Kotnala, A.B. Kadam
Journal of Magnetism and Magnetic Materials 465 (2018) 508–514
213. Magnetostructural properties and electric transport in Mn_{48+x}Cr_{3-x}Ni₃₈Sn₁₁ (x = 0, 1) ribbons: Mn/Ni ratio versus Cr doping
Barsha Borgohain, P.K. Siwach, Nidhi Singh, H.K. Singh
Journal of Magnetism and Magnetic Materials 454 (2018) 13–22

CONTENTS

214. Mesoporous silica mediated synthesis of α -Fe₂O₃ porous structures and their application as humidity sensors
Meenakshi Dutt, Kunchakara Suhasini, Amar Ratan, **Jyoti Shah, R. K. Kotnala, Vaishali Singh**
Journal of Materials Science: Materials in Electronics (2018) 29:20506–20516
215. Metal Oxide Based Hydroelectric Cell for Electricity Generation by Water Molecule Dissociation without Electrolyte/Acid
R. K. Kotnala, Rekha Gupta, Abha Shukla, Shipra Jain, Anurag Gaur, and Jyoti Shah
J. Phys. Chem. C 2018, 122, 18841–18849
216. Metal-CH₃NH₃PbI₃-Metal Tunnel FET
Kalpana Agrawal, Vinay Gupta, Ritu Srivastava, and S. S. Rajput
IEEE Transactions On Electron Devices, vol. 65, No. 5, May 2018
217. Microstructural evolution and photoluminescence performance of nickel and chromium doped ZnO nanostructures
J.S. Tawale, Ashavani Kumar, G. Swati, D. Haranath, S.J. Dhoble, A.K. Srivastava
Materials Chemistry and Physics 205 (2018) 9e15
218. Microstructure versus magnetic properties correlations in melt-spun
Nithya Christopher, Kritika Anand, A K Srivastava, Anurag Gupta and Nidhi Singh
Mater. Res. Express 5 (2018) 066104
219. Microwave assisted scalable synthesis of titanium ferrite nanomaterials
Abhishek Shukla, Abhishek K. Bhardwaj, S. C. Singh, K. N. Uttam, Nisha Gautam, A. K. Himanshu, **Jyoti Shah, R. K. Kotnala** and R. Gopal
Journal Of Applied Physics 123, 161411 (2018)
220. Minimizing the potential of cancer recurrence and metastasis by the use of graphene oxide nano-flakes released from smart fiducials during image-guided radiation therapy
Dolla Toomeh, Sherif M. Gadoue, Sayeda Yasmin-Karim, Manjri Singh, Rishi Shanker, **Surinder Pal Singh**, Rajiv Kumar, Erno Sajo, Wilfred Ngwa,
Physica Medica 55 (2018) 8–14
221. Mixed Phase Compositions of MoS₂ Ultra Thin Film Grown by Pulsed Laser Deposition
Arun Barvat, Nisha Prakash, Dilip K. Singh, Anjana Dogra, Suraj P. Khanna, Sandeep Singh, Prabir Pal
Materials Today: Proceedings 5 (2018) 2241–2245

CONTENTS

222. Modeling of gate bias controlled NO₂ response of the PCDTBT based organic field effect transistor
Ashwini Kumar, P. Jha, Ajay Singh, A.K. Chauhan, S.K. Gupta, **D.K. Aswal**,
K.P. Muthe, S.C. Gadkari
Chemical Physics Letters 698 (2018) 7–10
223. Modulating the lattice dynamics of n-type Heusler compounds via tuning Ni concentration
Nagendra S. Chauhan, Bhasker Gahtori, Bathula Sivaiah, Subhendra D. Mahanti,
Ajay Dhar, Amrita Bhattacharya
applied physics letters 113, 013902 (2018)
224. Molecular structure, vibrational, optical and second order polarizabilities of (E)-1-(2',4'-Dihydroxyphenyl)-3-(2,3-dimethoxyphenyl)propenone chalcone derivative: a quantum computational approach
S. Omar, Mohd. Shkir, S. AlFaify, V. Ganesh, H. Algarni, Pattan Sirajuddin Nayab,
M. Arora
Optical and Quantum Electronics (2018) 50:278
225. Most probable mixing state of aerosols in Delhi NCR, northern India
Parul Srivastava, Sagnik Dey, Atul Kumar Srivastava, **Sachchidanand Singh**,
Suresh Tiwari
Atmospheric Research 200 (2018) 88–96
226. Multiwall carbon nanotube embedded phenolic resin-based carbon foam for the removal of As (V) from contaminated water
Pinki Rani Agrawal, Nahar Singh, Saroj Kumari and Sanjay R Dhakate
Mater. Res. Express 5 (2018) 035601
227. Na incorporated improved properties of Cu₂ZnSnS₄ (CZTS) thin film by DC sputtering
K.S. Gour, A.K. Yadav, O.P. Singh, V.N. Singh
Vacuum 154 (2018) 148–153
228. Nanostructured Cu₂ZnSnS₄ (CZTS) thin film for self-powered broadband photodetection
K.S. Gour, Biplob Bhattacharyya, O.P. Singh, A.K. Yadav, Sudhir Husale, V.N. Singh
Journal of Alloys and Compounds 735 (2018) 285e290
229. Nanostructured titania based electrochemical impedimetric biosensor for non-invasive cancer detection accepted for publication
Sumit Kumar, Jitendra Kumar and **Shailesh Narayan Sharma**
Mater. Res. Express 5 (2018) 125405
230. Naphthalene diimide self-assembled ribbons with high electrical conductivity and mobility without doping
Neelam Kumari, Samya Naqvi and Rachana Kumar
J Mater Sci (2018) 53:4046–4055

CONTENTS

231. Near room temperature bismuth and lithium co-substituted BaTiO₃ relaxor ferroelectrics family
Hitesh Borkar, Vaibhav Rao, M. Tomar, Vinay Gupta, Ashok Kumar
Journal of Alloys and Compounds 737 (2018) 821e828
232. Necessity of ‘two time zones: IST-I(UTC + 5 : 30 h) and IST-II (UTC + 6 : 30 h)’ in India and its implementation
Lakhi Sharma, S. De, P. Kandpal, M. P. Olaniya, S. Yadav, T. Bhardwaj, P. Thorat, S. Panja, P. Arora, N. Sharma, A. Agarwal, T. D. Senguttuvan, V. N. Ojha and D. K. Aswal
Current Science, vol. 115, no. 7, 10 october 2018
233. Negative-capacitance and bulk photovoltaic phenomena in gallium nitride nanorods network
Atul Thakre, Sunil Singh Kushvaha, M. Senthil Kumar and Ashok Kumar
RSC Adv., 2018, 8, 32794
234. Nighttime particle growth observed during spring in New Delhi: Evidences for the aqueous phase oxidation of SO₂
Bighnaraj Sarangi, Shankar G. Aggarwal, Bhagawati Kunwar, Sudhanshu Kumar, Ravleen Kaur, Deepak Sinha, Suresh Tiwari, Kimitaka Kawamura
Atmospheric Environment 188 (2018) 82–96
235. Nitrogen doped graphene – Silver nanowire hybrids: An excellent anode material for lithium ion batteries
Anju K. Nair, **Indu Elizabeth**, Gopukumar, Sabu Thomas, Kala M.S, Nandakumar Kalarikkal
Applied Surface Science 428 (2018) 1119–1129
236. Nitrogen doped high quality CVD grown graphene as a fast responding NO₂ gas sensor
Shubhda Srivastava, Pradeep Kumar Kashyap, Vidyanand Singh, T. D. Senguttuvan and Bipin Kumar Gupta
New J. Chem., 2018,42, 9550
237. Non lithographic block copolymer directed self-assembled and plasma treated self-cleaning transparent coating for photovoltaic modules and other solar energy devices
Deepanjana Adak, Sugato Ghosh, Poulomi Chakraborty, **K.M.K. Srivatsa**, Anup Mondal, Hiranmay Saha, Rabibrata Mukherjee, Raghunath Bhattacharyy
Solar Energy Materials and Solar Cells 188 (2018) 127–139
238. Non-approximated series resistance evaluation by considering high ideality factor in organic solar cell
Aniket Rana, Amit Kumar, Md. Wazedur Rahman, Nikita Vashistha, Kuldeep K. Garg, Sandeep Pandey, Nanda Gopal Sahoo, Suresh Chand and Rajiv K. Sing
AIP Advances 8, 125121 (2018)
239. Non-covalently anchored multi-walled carbon nanotubes with hexa-decafluorinated zinc phthalocyanine as ppb level chemiresistive chlorine sensor
Anshul Kumar Sharma, Aman Mahajan, R.K. Bedi, Subodh Kumar, A.K. Debnath, **D.K. Aswal**
Applied Surface Science 427 (2018) 202–209

CONTENTS

240. Nonlinear optical single crystal of L -Cystine hydrochloride: Insights into the crystalline perfection, thermal, mechanical and optical properties for device fabrication
Mahak Vij, Sonia, Hemant Kumar Verma, M.S. Jayalakshmy, Budhendra Singh, Sunil Verma, **K.K. Maurya**
Physica B: Condensed Matter 550 (2018) 250–259
241. Novel facets of multifunctional Ag@Fe₃O₄ core-shell nanoparticles for multimodal imaging applications
Pinki Singh, **Bipin Kumar Gupta**, Nand Kishore Prasad, Pramod Kumar Yadav, and Chandan Upadhyay
Journal of Applied Physics 124, 074901 (2018)
242. Novel synthesis process of methyl ammonium bromide and effect of particle size on structural, optical and thermodynamic behavior of CH₃NH₃PbBr₃ organometallic perovskite light harvester
Rajan Kumar Singh, Ranveer Kumar, **Amit Kumar**, Neha Jain, **Rajiv Kr. Singh**, Jai Singh
Journal of Alloys and Compounds 743 (2018) 728e736
243. Optimization of Ni²⁺ /Ni³⁺ ratio in reduced graphene oxide/nickel oxide nanohybrids for platinum free dye sensitized solar cells
Rajinder Singh, Sanjeev Kumar, R.K. Bedi, Vibha Saxena, **D.K. Aswal**, Aman Mahajan
Journal of Physics and Chemistry of Solids 123 (2018) 191–197
244. Optimized reduction of graphite oxide for highly exfoliated silver nanoparticles anchored graphene sheets for dye sensitized solar cell applications
Sanjeev Kumar, Rajinder Singh, Aman Mahajan, R.K. Bedi, Vibha Saxena, **D.K. Aswal**
Electrochimica Acta 265 (2018) 131e139
245. P1-APMP.EM-S12 Comparison of Standards for the Calibration of Voltage, Current and Resistance Meters
Louis Marais, Liu Yue, Steven Yang, **Sunidhi Luthra**, **Saood Ahmad**, Yasuhiro Noguchi, Tay Siew Choon, Chua Sze Wey, Yaowaret Pimsut, Chalit Kumtawee
Metrologia Vol. 55 Supplement: S Article Number: 01006 2018
246. Phase transition and anomalous rheological properties of graphene oxide-carbon nanotube acrylonitrile butadiene styrene hybrid composites
Jeevan Jyoti, S.R. Dhakate, Bhanu Pratap Singh
Composites Part B 154 (2018) 337–350
247. Phase Transition Peculiarities in BaTiO₃ -Based Perovskite Superlattices
O. A. Maslova, Yu. I. Yuzyuk, N. Ortega, **A. Kumar**, S. A. Barannikova and R. Katiyar
AIP Conf. Proc. 2051, 020190-1–020190-4 doi.10.1063/1.5083433
248. Phenol red dyed bis thiourea cadmium acetate monocrystal growth and characterization for optoelectronic applications
Vanga Ganesh , Mohd. Shkir, **Kamlesh Kumar Maurya**, I.S. Yahia and Salem AlFaify
J. Mater. Res., Vol. 33, No. 16, Aug 28, 2018

CONTENTS

249. Photoluminescence investigations on Sm 3+ ions doped borate glasses for tricolor w-LEDs and lasers
Nisha Deopa, A.S. Rao, Ankur Choudhary, Shubham Saini, Abhishek Navhal, M. Jayasimhadri, **D. Haranath**, G. Vijaya Prakash
Materials Research Bulletin 100 (2018) 206–212
250. Physico-chemical characterization of individual Antarctic particles: Implications to aerosol optics
Vikas Goel, Sumit Kumar Mishra, Neelesh Lodhi, Sachchidanand Singh, Ajit Ahlawat, Beena Gupta, Rupesh M. Das, R.K. Kotnala,
Atmospheric Environment 192 (2018) 173–181
251. Author Correction: Physico-chemical properties based differential toxicity of graphene oxide/reduced graphene oxide in human lung cells mediated through oxidative stress
Sandeep Mittal, **Veeresh Kumar**, Nitesh Dhiman, Lalit Kumar Singh Chauhan, **RenuPasricha & Alok Kumar Pandey**
Scientific RePortS |(2018) 8:15860
252. Plasmon augmented two photon absorption in a strongly coupled nano-molecular hybrid
Kaweri Gambhir, Parag Sharma, Alka Sharma, Sudhir Husale, Ranjana Mehrotra
Dyes and Pigments 155 (2018) 313–322
253. Precursor ratio optimizations for the synthesis of colloidal CZTS nanoparticles for photocatalytic degradation of malachite green
Shefali jain, Akanksha Singh, Govind Gupta, N. Vijayan, Shailesh Narain Sharma
Journal of Physics and Chemistry of Solids 122 (2018) 8–18
254. Preferential Binding of Flavonoids with Bovine Serum Albumin: In-Silico and Spectroscopic Insight into Cytotoxic Competence
Bhumika Ray
Biophysical Journal 114 (3), 55a
255. Probing the Mechanism for Bipolar Resistive Switching in Annealed Graphene Oxide Thin Films
Pooja Saini, **Manjri Singh**, Jyoti Thakur, **Ranjit Patil**, Yuan Ron Ma, Ram P. Tandon, **Surinder P. Singh** and Ajit K. Mahapatro
ACS Appl. Mater. Interfaces 2018, 10, 6521–6530
256. Proximity-induced supercurrent through topological insulator based nanowires for quantum computation studies
Biplab Bhattacharyy, Sudhir Husale, V. P. S. Awana, T. D. Senguttuvan, V. N. Ojha
Scientific RePOrts |(2018) 8:17237
257. Quantum chemical investigation on molecular structure, vibrational, photophysical and nonlinear optical properties of L -threoninium picrate: an admirable contender for nonlinear applications
S. AlFaify, Mohd. Shkir, **M. Arora**, Ahmad Irfan, H. Algarni, Haider Abbas, Abdullah G. Al-Sehemi
Journal of Computational Electronics (2018) 17:1421–1433

CONTENTS

258. Rare earth metal oxide (RE_2O_3 ; $RE = Nd, Gd, \text{ and } Yb$) incorporated polyindole composites: gravimetric and volumetric capacitive performance for supercapacitor applications
Mandira Majumder, Chandra Sekhar Rout, Ram B. Choudhary, Anukul K. Thakur,
Govind Gupta
New J. Chem., 2018, 42, 5295
259. Reactive Sputtering Technique for Kesterite and Chalcogenide Based Thin Film Solar Cells
Om Pal Singh, Kuldeep Singh Gour, Rahul Parmar and **Vidya Nand Singh**
Journal of Nanoscience and Nanotechnology Vol. 18, 7670–7681, 2018
260. Realization of 2.4 mm coaxial microcalorimeter system as national standard of microwave power from 1 MHz to 50 GHz
Saood Ahmad, Michael Charles, Djamel Allal, **P.S. Negi, V.N Ojha**
Measurement 116 (2018) 106–113
261. Realization of Highly Efficient Polymer Solar Cell Based on PBDTTT-EFT and [71]PCBM
Vishal Bharti, **Suresh Chand** and Viresh Dutta
AIP Conf. Proc. 1942, 140084-1–140084-4
262. Reduction of Rocksalt Phase in Ag-Doped $Ge_2Sb_2Te_5$: A Potential Material for Reversible Near-Infrared Window
Palwinder Singh, A.P. Singh, Jeewan Sharma, Akshay Kumar, **Monu Mishra, Govind Gupta** and Anup Thakur
Physical Review Applied 10, 054070 (2018)
263. Report on APMP Supplementary Comparison Measurement of flatness of optical flat by interferometry
J. Buajareern, Y. Bitou, X. Zi, L. Zhao, N. Swift, **A. Agarwal**, F. Hungwe,
Metrologia 55 04002
264. Key Comparison EURAMET.L-K3.2009
Ralf D. Geckeler, Andreas Just, Valentin Vasilev, Emilio Prieto, František Dvořáček, Slobodan Zelenika, Joanna Przybylska, Alexandru Duta, Ilya Victorov, Marco Pisani, Fernanda Saraiva, Jose Antonio Salgado, Sitian Gao, Tonmueanwai Anusorn, Siew Leng Tan, Peter Cox, Tsukasa Watanabe Andrew Lewis, **K.P. Chaudhary**, Ruedi Thalmann, Edit Banreti, Alfiyati Nurul, Roman Fira, Tanfer Yandayan, Konstantin Chekirda, Rob Bergmans, Antti Lassila
Metrologia, Volume 55, Technical Supplement, 2018
265. Response to comments on “Reduced band gap & charge recombination rate in Se doped a-Bi $2O_3$ leads to enhanced photoelectrochemical and photocatalytic performance: Theoretical & experimental insight” [Int J Hydrogen Energy 42(2017) 20638e20648]
Rishabh Sharma, Manika Khanuja, **Shailesh Narayan Sharma**, Om Prakash Sinha
International Journal Of Hydrogen Energy 43 (2018) 470e471
266. Revealing charge carrier dynamics in squaraine: [6, 6]-phenyl-C 71-butyrac acid methyl ester based organic solar cells
Aniket Rana, Chhavi Sharma, Deepak D. Prabhu, **Mahesh Kumar**, Yoosaf Karuvath, Suresh Das, **Suresh Chand and Rajiv K. Singh**
AIP Advances 8, 045302 (2018)

CONTENTS

267. Reversible and fast responding ppb level Cl₂ sensor based on noncovalent modified carbon nanotubes with Hexadecafluorinated copper phthalocyanine
Anshul Kumar Sharma, Aman Mahajan, Rajan Saini, R.K. Bedi, Subodh Kumar, A.K. Debnath, **D.K. Aswal**
Sensors and Actuators B 255 (2018) 87–99
268. Role of National Pressure and Vacuum Metrology in Indian Industrial Growth and Their Global Metrological Equivalence
S. Yadav, A. Zafer, A. Kumar, N. D. Sharma and D. K. Aswal
Mapan-Journal Of Metrology Society Of India (December 2018) 33(4):347–359
269. Scattering and absorption characteristics of aerosols at an urban megacity over IGB: Implications to radiative forcing
A.K. Srivastava, D.S. Bisht, **Sachchidanand Singh**, N. Kishore, V.K. Soni, Siddhartha Singh, S. Tiwari
Atmospheric Research 205 (2018) 107–117
270. Scavenging phenomenon and improved electrical and mechanical properties of polyaniline–divinylbenzene composite in presence of MWCNT
Vipin Kumar, Tomohiro Yokozeki, Teruya Goto, Tatsuhiro Takahashi, **Sushant Sharma, Sanjay R. Dhakate, Bhanu P. Singh**
Int J Mech Mater Des (2018) 14:697–708
271. Seasonal and annual trends of carbonaceous species of PM₁₀ over a megacity Delhi, India during 2010–2017
S. K. Sharma, T. K. Mandal, A. Sharma, Saraswati, Srishti Jain
Journal of Atmospheric Chemistry (2018) 75:305–318
272. Short Note on Superconductivity at Ambient Temperature and Pressure in Silver-Embedded Gold Nano-particles: a Goldsmith Job Ahead
V. P. S. Awana
Journal of Superconductivity and Novel Magnetism (2018) 31:3387–3389
273. Signature of a Griffiths phase in layered canted antiferromagnet Sr₂IrO₄
A. Rathi, P.K. Rout, Sonam Perween, G.A. Basheed, R.P. Singh, P.D. Babu, **Anurag Gupta, R.P. Pant, G.A. Basheed**
Journal of Magnetism and Magnetic Materials 468 (2018) 230–234
274. Significant enhancement in thermoelectric performance of nanostructured higher manganese silicides synthesized employing a melt spinning technique†
Saravanan Muthiah, R. C. Singh, B. D. Pathak, **Piyush Kumar Avasthi, Rishikesh Kumar, Anil Kumar, A. K. Srivastava and Ajay Dhar**
Nanoscale, 2018, 10, 1970
275. Significant improvement in static and dynamic mechanical properties of graphene oxide–carbon nanotube acrylonitrile butadiene styrene hybrid composites
Jeevan Jyoti, Arun Singh Babal, Sushant Sharma, S. R. Dhakate, Bhanu Pratap Singh
J Mater Sci (2018) 53:2520–2536

CONTENTS

276. Significant role of antiferromagnetic GdFeO₃ on multiferroism of bilayer thin films
Jyoti Shah, Priyanka Bhatt, K Diana Diana Dayas and R K Kotnala
Mater. Res. Express 5 (2018) 026416
277. Silicon Wafer Surface Reflectance Investigations by Using Different Surface Texturing Parameters
Girija Moona, Pankaj Kapruwan, Rina Sharma, V. N. Ojha
Proc. Natl. Acad. Sci., India, Sect. A Phys. Sci. (October–December 2018)
88(4):617–623
278. Silver (Ag) incorporated Cu₂ZnSnS₄ thin film for improved optical and morphological properties
K.S. Gour, O.P. Singh, J.S. Tawale, V.N. Singh
Superlattices and Microstructures 120 (2018) 54e59
279. SIM Key Comparison of S-parameters SIM.EM.RF-K5b.CL
H. Silva, G. Monasterios, S. Padilla, R. Ginley, A. Michaud, **P. S. Negi**
2018 Conference on Precision Electromagnetic Measurements (CPEM 2018)
280. Silver nanoparticles induced alterations in multiple cellular targets, which are critical for drug susceptibilities and pathogenicity in fungal pathogen (*Candida albicans*)
Venkatraman Srinivasan, Radhakrishnan, Mohana Krishna Reddy, Mudiam, Manish Kumar, Surya Prakash Dwivedi, **Surinder Pal Singh**, Tulika Prasad
International Journal of Nanomedicine 2018:13 2647–2663
281. Simple extraction cum rp-hplc method for estimation of nanotized quercetin in serum and tissues of mice
Kriti Gupta, Akanksha Sharma, Rinkesh Gupta, Sumita Dixit, **Surinder P. Singh**, Mukul Das, and Premendra D. Dwivedi
Pharmaceutical Chemistry Journal, Vol. 52, No. 2, May, 2018
282. Single layer graphene: an alternative electrode material for ferroelectric liquid crystal based displays
Ajay Kumar, Prasun Ganguly & **Ashok M. Biradar**
Liquid Crystals 2018, vol. 45, no. 11, 1620–1625
283. Single-frequency impedance analysis of biofunctionalized dendrimer-encapsulated Pt nanoparticles-modified screen-printed electrode for biomolecular detection
Shobhita Singal, Avanish K. Srivastava, R. K. Kotnala & Rajesh
Journal of Solid State Electrochemistry (2018) 22:2649–2657
284. Sintering dependent Ca²⁺ solubility in barium titanate synthesized by sol–gel auto combustion method
Smaranika Dash, Hari Sankar Mohanty, Krishnamayee Bhoi, **Ravi Kant, Ashok Kumar**, Reji Thomas, Dillip K. Pradhan
Journal of Materials Science: Materials in Electronics (2018) 29:20820–20831
285. Size-Tunable Synthesis of Colloidal Silver Sulfide Nanocrystals for Solution-Processed Photovoltaic Applications
Razi Ahmad, Ritu Srivastava, Hema Bhardwaj, Sushma Yadav, **Vidya Nand Singh, Suresh Chand, Nidhi Singh**, and Sameer Sapra
ChemistrySelect 2018, 3, 5620 – 5629

CONTENTS

286. Sol-gel synthesis of Cu-doped p-CdS nanoparticles and their analysis as p-CdS/n-ZnO thin film photodiode
Sandeep Arya, Asha Sharma, Bikram Singh, Mohammad Riyas, Pankaj Bandhoria,
Mohammad Aatif, Vinay Gupta
Optical Materials 79 (2018) 115–119
287. Solution processed hole transport layer towards efficient and cost effective organic solar cells
Ranoo Bhargav, **Asit Patra, S.K. Dhawan, S.P. Gairola**
Solar Energy 165 (2018) 131–135
288. Source apportionment of PM 10 in Delhi, India using PCA/APCS, UNMIX and PMF
Srishti Jain, S.K. Sharma, T.K. Mandal, Mohit Saxena
Particuology 37 (2018) 107–118
289. S-Parameter Based Evaluation of Cable Losses for Precise Low Frequency Voltage and Current Calibration
Swati Kumari, Sunidhi Luthra, Jyoti Chauhan, Bijendra Pal, Saood Ahmad, Ravinder Kumar, P.S. Negi and V.N. Ojha
Management, Lecture Notes in Electrical Engineering 436,
https://doi.org/10.1007/978-981-10-4394-9_31
290. Spark plasma sintering technique: an alternative method to enhance ZT values of Sb doped Cu₂SnSe₃
K. Shyam Prasad, Ashok Rao, **Ruchi Bhardwaj, Kishor Kumar,**
Johri Chia Chi Chang, Yung Kang Kuo
Journal of Materials Science: Materials in Electronics (2018) 29:13200–13208
291. Spatial methane emission modelling from wetlands using geospatial tools
Sangeeta Bansal, J. K. Garg, **C. S. Sharma** and Deeksha Katyal
International Journal Of Remote Sensing 2018, vol. 39, no. 18, 5907–5933
292. Spatial variations of intra-city urban heat island in megacity Delhi
Neha Yadav, Chhemendra Sharma
Sustainable Cities and Society 37 (2018) 298–306
293. Spectroscopic and electronic properties of polyallylamine functionalized graphene oxide films
Pooja Saini, **Manjri Singh, Surinder P. Singh,** Ajit K. Mahapatro
Vacuum 154 (2018) 110–114

CONTENTS

294. Spectroscopic study of Pr 3p ions doped Zinc Lead Tungsten Tellurite glasses for visible photonic device applications
Ritu Sharma, A.S. Rao, Nisha Deopa, M. Venkateswarlu, M. Jayasimhadri,
D. Haranath, G. Vijaya Prakash
Optical Materials 78 (2018) 457e464
295. Stable carbon and nitrogen isotopic composition of PM 10 over Indo-Gangetic Plains (IGP), adjoining regions and Indo-Himalayan Range (IHR) during a winter 2014 campaign
Avirup Sen, Supriya G. Karapurkar, **Mohit Saxena**, Damodar M. Shenoy,
Abhijit Chatterjee, Anil K. Choudhuri, Trupti Das, Altaf H. Khan,
Jagdish Chandra Kuniyal, Srimata Pal, Dharam Pal Singh, **Sudhir Kumar Sharma**,
Ravindra Kumar Kotnala & Tuhin Kumar Mandal, Ravindra Kumar Kotnala,
Tuhin Kumar Mandal
Environmental Science And Pollution Research (2018) 25:26279–26296
296. Star-Shaped CuS Flat Nanoflakes Reinforced Ni(OH)₂ Nanosheets for Enhanced Capacitance
B. Narsimha Reddy, **Govind Gupta**, and Pravin P. Ingole
ChemistrySelect 2018, 3, 11293 – 11301
297. Structural and Optical Properties of Manganese-Doped Nanocrystalline Zinc Oxide/Polyvinylidene Fluoride Flexible Composite Thin Films Deposited by the Sol–Gel Method
R. Bhunia, S. Das, S. Hussaing, G. Sehgal, B.R. Chakraborty, R. Bhar, A.K. Pal
Advances in Polymer Technology, Vol. 37, No. 1, 2018
298. Structural phase transition, impedance spectroscopy and narrow optical band Gap in (1 – x)KNbO₃ – xBa_{0.5}Sc_{0.5}Nb₁₀O₃₃
Rajender Prasad Tiwari, Vijay Kumar, S. Singh, **Jyoti Shah**, **Ravinder Kumar Kotnala**,
Balaji Birajdar
Journal of the European Ceramic Society 38 (2018) 1427–1433
299. Structural, magnetic and dielectric properties of Gd_{3p} substituted NiFe₂O₄ nanoparticles
Seema Joshi, Manoj Kumar, Himanshu Pandey, Mahavir Singh, **Prabir Pal**
Journal of Alloys and Compounds 768 (2018) 287e297
300. Structural, morphological, photoluminescence and electrical characterization of aluminium doped ZnO phosphors for solar cell applications
Swati Bishnoi, **B. Rajesh**, **G. Swati**, **Vishnu Vikesh Jaiswal**, **Mukesh Sahu**,
Paramjeet Singh and **D. Haranath**,
Materials Today: Proceedings 5 (2018) 610–619

CONTENTS

301. Structural, multiferroic, dielectric and magnetoelectric properties of $(1-x)\text{Ba}_{0.85}\text{Ca}_{0.15}\text{Ti}_{0.90}\text{Zr}_{0.10}\text{O}_{3-x}\text{CoFe}_2\text{O}_4$ lead-free composites
N.S. Negi, Rakesh Kumar, Hakikat Sharma, **J. Shah, R.K. Kotnala**
Journal of Magnetism and Magnetic Materials 456 (2018) 292–299
302. Structural, optical and Carrier dynamics of self-assembled InGaN nanocolumns on Si(111)
Praveen Kumar, Pooja Devi, P.E.D. Soto Rodriguez, Rishabh Jain, Neena Jaggi,
R.K. Sinha, **Mahesh Kumar**
Superlattices and Microstructures 117 (2018) 25e30
303. Structural, optical and magnetic properties of Fe-doped CeO₂ samples probed using X-ray photoelectron spectroscopy
Swati Soni, V. S. Vats, Sudhish Kumar, B. Dalela, **Monu Mishra, R. S. Meena, Govind Gupta**, P. A. Alvi, S. Dalela
Journal of Materials Science: Materials in Electronics (2018) 29:10141–10153
304. Structural, vibrational and electronic properties of CuO nanoparticles synthesized via exploding wire technique
Anshuman Sahai, Navendu Goswami, **Monu Mishra, Govind Gupta**
Ceramics International 44 (2018) 2478–2484
305. Structure, magnetism and electrical transport in epitaxial La_{0.23}Pr_{0.41}Ca_{0.36}MnO₃ thin films: Consequences of film thickness
Sandeep Singh, P. K. Tyagi and **H. K. Singh**,
AIP Advances 8, 095002 (2018)
306. Studies on the effect of integration of metal nanoclusters on the electrical and ferroelectric properties of barium titanate thin film
S. Sharma, M. Tomar, **A. Kumar** and V. Gupta
Ferroelectrics 2018, vol. 533, 43–48
307. Study of crystal structure, dielectric, magnetic and magnetoelectric properties of $x\text{CoFe}_2\text{O}_4-(1-x)\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3$ composites
Tanvi Bhasin, Ashish Agarwal, Sujata Sanghi, **R.K. Kotnala, Jyoti Shah**, Manisha Yadav, Muskaan Tuteja
Ceramics International 44 (2018) 7629–7636
308. Study of enhancement in the dielectric and electrical properties of WO₃-doped LiF nano-composite
Ritu Verma, Surya Prakash Tiwari, Reena Kumari, and Ritu Srivastava,
J Mater Sci (2018) 53:4199–4208

CONTENTS

309. Study of nanosized copper-doped ZnO dilute magnetic semiconductor thick films for spintronic device applications
Rayees Ahmad Zargar, **Manju Arora**, Riyaz Ahmed Bhat
Applied Physics A (2018) 124:36
310. Study on nanocrystalline silicon thin films grown by the filtered cathodic vacuum arc technique using boron doped solid silicon for fast photo detectors
Ravi Kant Tripathi, O.S. Panwar, Ishpal Rawal, **B.P. Singh**, B.C. Yadav
Journal of the Taiwan Institute of Chemical Engineers 86 (2018) 185–191
311. Superconducting properties of NbN film, bridge and meanders
Lalit M. Joshi, **Apoorva Verma**, **Anurag Gupta**, **P. K. Rout**, **Sudhir Husale**,
and R. C. Budhani
AIP Advances 8, 055305 (2018)
312. Superconductivity in doped FeTe $1-x$ S_x (x=0.00 to 0.25) single crystals
P K Maheshwari, V Raghavendra Reddy, **B Gahtori** and **V P S Awana**
Mater. Res. Express 5 (2018) 126002
313. Surface Plasmon Enhanced Organic Solar Cells using Thermally Deposited Au Nanoparticles
Manisha Bajpai, C. K. Pandey, **Ritu Srivastava**, RakheeMalik,
Gyanendra Prakash Shukla, Ravindra Dhar, A.K. Katiyar and B. Narayan
AIP Conf. Proc. 2050, 020023-1–020023-3
314. Surface studies of a 2400-year old corrosion resistant ancient Indian Iron Artifact
Vandana Singh & **Sukhvir Singh**
Indian Journal of Chemical Technology Vol.25(4) July 2018
315. Surface-Engineered Nanostructure-Based Efficient Nonpolar GaN Ultraviolet Photodetectors
Monu Mishra, **Abhiram Gundimeda**, **Shibin Krishna**, **Neha Aggarwal**,
Lalit Goswami, **Bhasker Gahtori**, **Biplab Bhattacharyya**, **Sudhir Husale**,
and **Govind Gupta**,
ACS Omega 2018, 3, 2304–2311

CONTENTS

316. Swift heavy ion induced material modifications in Ba_{1-x}Sr_xTiO₃ ceramics as probed by temperature dependent Raman spectroscopy
P.K. Bajpai, C.R.K. Mohan, Ratnamala Ganjir, Ravi Kumar, **Ashok Kumar**, R.S. Katiyar
J Raman Spectrosc. 2018;49:324–335.
317. Synergetic effect of graphene oxide-carbon nanotube on nanomechanical properties of acrylonitrile butadiene styrene nanocomposites
Jeevan Jyoti, Bhanu Pratap Singh, Sreekumar Chockalingam, Amish G Joshi, Tejendra K Gupta and S R Dhakate
Mater. Res. Express 5 (2018) 045608
318. Synergistic effect of polypyrrole/BST/RGO/Fe₃O₄ composite for enhanced microwave absorption and EMI shielding in X-Band
Pradeep Sambyal, **S.K. Dhawan**, Preeti Gairola, Sampat Singh Chauhan, S.P. Gairola
Current Applied Physics 18 (2018) 611–618
319. Synthesis & characterization of poly(o-phenitidine)/SiO₂/Epoxy for anti-corrosive coating of mild steel in saline conditions
Pradeep Sambyal, Gazala Ruhi, S P Gairola, **S K Dhawan** and Brij Mohan Bisht
Mater. Res. Express 5 (2018) 085307
320. Synthesis and Application of PHT-TiO₂ Nanohybrid for Amperometric Glucose Detection in Human Saliva Sample
Sachin Kadian, Brahm Dutt Arya, Sumit Kumar, Shailesh N. Sharma, Rishi Pal Chauhan, Ananya Srivastava, Pranjal Chandra and **Surinder P. Singh**
Electroanalysis 2018, 30, 2793 – 2802
321. Synthesis and electromagnetic shielding behaviour of poly(otoluidine)/red mud composite
S.P. Gairola, Anu Pande, **Preeti Gairola**, Sudesh Sharma, L.P. Purohit, **S.K. Dhawan**
Polym Adv Technol. 2018;29:560–564.
322. Synthesis and enhancement of photoluminescent properties in spherical shaped Sm³⁺/Eu³⁺ co-doped NaCaPO₄ phosphor particles for w-LEDs
Mukesh K. Sahu, M. Jayasimhadri, Kaushal Jha, **B. Sivaiah**, A.S. Rao, **D. Haranath**
Journal of Luminescence 202 (2018) 475–483
323. Synthesis and Structural Characterization of Bulk Sb₂Te₃ Single Crystal
Rabia Sultana, Bhasker Gahtori, R.S. Meena and V.P.S. Awana
AIP Conf. Proc. 1953, 070021-1–070021-4

CONTENTS

324. Synthesis of MoS₂-reduced graphene oxide/Fe₃O₄ nanocomposite for enhanced electromagnetic interference shielding effectiveness
Jagdees Prasad, Ashwani Kumar Singh, **Jyoti Shah**, **R K Kotnala** and Kedar Singh
Mater. Res. Express 5 (2018) 055028
325. Synthesis, Crystal Structure, and Optical Gap of Two-Dimensional Halide Solid Solutions CsPb₂(Cl_{1-x}Br_x)₅
Yibao Chen, Maxim S. Molokeev, Victor V. Atuchin, Ali H. Reshak, **Sushil Auluck**, Zeyad A. Alahmed, and Zhiguo Xia,
Inorg. Chem. 2018, 57, 9531–9537
326. Tailoring of the chlorine sensing properties of substituted metal phthalocyanines non-covalently anchored on single-walled carbon nanotubes
Anshul Kumar Sharma, Aman Mahajan, **D. K. Aswal**, Subodh Kumar, A. K. Debnath
RSC Adv., 2018, 8, 32719
327. Tb³⁺ and Eu³⁺ Doped Zinc Phosphate Glasses for Solid State Lighting Applications
Kaushal Jha, Amit K Vishwakarma, M. Jayasimhadri, **D. Haranath** and Kiwan Jang,
AIP Conf. Proc. 1942, 070036-1–070036-4; <https://doi.org/10.1063/1.5028834>
328. TDDFT Investigation of the Hybrid Organic Inorganic Perovskite: CH₃NH₃PbCl₃
Ganesh Alwarappan, Aashik Padmanabachary, Md Raiyan Alam, Aashka Bhandari, Sunil Patil, **Jeyakumar R**, Mohamed F. Shibl, Walid M.I. Hassan, Reza Nekovei
2018 IEEE 13th Nanotechnology Materials and Devices Conference (NMDC)
329. Temperature dependence of lower critical field of YBCO Superconductor
Poonam Rani, A.K. Hafiz and **V.P.S. Awana**
AIP Conf. Proc. 1953, 120026-1–120026-4
330. Temperature dependent Raman investigation of multiwall carbon nanotubes
Nita Dilawar Sharma, **Jasveer Singh**, and **Aditi Vijay**
Journal of Applied Physics 123, 155101 (2018)
331. Temperature-dependent space-charge-limited conduction in BaTiO₃ heterojunctions
Pooja Singh, **P. K. Rout**, Himanshu Pandey and **Anjana Dogra**
J Mater Sci (2018) 53:4806–4813
332. Thermal properties of La_{0.7}Ca_{0.2}Sr_{0.1}MnO₃:PdO composites
Ramesh Chandra Bhatt, S.O. Manjunatha, Ashok Rao, Riya Thomas, **V.P.S. Awana**, C.F. Lin, Y.K. Kuod,
Physica B: Condensed Matter 550 (2018) 117–121
333. Thermoelectric properties of BiCuSeO with bismuth and oxygen vacancies
Sayan Das, Anbalagan Ramakrishnan, Kuei-Hsien Chen, **Dinesh Kumar Misra** and Ramesh Chandra Mallik
J. Phys. D: Appl. Phys. 51 (2018) 035501 (9pp)
334. Thermoelectric properties of p-type Sb-doped Cu₂SnSe₃ near room and mid temperature applications
K. Shyam Prasad, Ashok Rao, **Nagendra S. Chauhan**, **Ruchi Bhardwaj**, **Avinash Vishwakarma**, **Kriti Tyagi** *Applied Physics A* (2018) 124:98

CONTENTS

335. Thickness-dependent magnetic and transport properties of La_{0.5}Sr_{0.5}MnO₃ thin films deposited by DC magnetron sputtering on the LaAlO₃ substrate
K. Yadav, H. K. Singh, K. K. Maurya, G. D. Varma
Applied Physics A (2018) 124:66
336. Time Decay Study of Ag/PEDOT:PSS/ μ T-Si/In:Ga Heterojunction Solar Cell using Electrochemical Impedance Spectroscopy
Prashant Singh, Swati Bhushan, Vandana, C.M.S. Rauthan, Sanjay K. Srivastava
AIP Conf. Proc. 2009, 020037-1–020037-4
337. Time-controlled synthesis mechanism analysis of kesterite-phased Cu₂ZnSnS₄ nanorods via colloidal route
Shefali Jain, Dinesh Singh, N. Vijayan, Shailesh Narain Sharma
Applied Nanoscience (2018) 8:435–446
338. Timing Traceability and the Link Between ISRO-NPLI
M. P. Olaniya, P Kandpal, A Acharya, A S Gupta, A Arora, D Suresh, T. S. Ganesh,
MAPAN-Journal of Metrology Society of India (December 2018) 33(4):369–375
339. Topological Insulator Based Dual State Photo-Switch Originating Through Bulk and Surface Conduction Channels
Biplab Bhattacharyya, Anurag Gupta, Thanikachalam Devarajan Senguttuvan, Vijay Narain Ojha, and Sudhir Husale
Phys. Status Solidi B 2018, 255, 1800340
340. Transition from CZTSe to CZTS via multicomponent CZTSSe: Potential low cost photovoltaic absorbers
Parul Chawla, Shefali Jain, Parth Vashishtha, Mansoor Ahamed, Shailesh Narain Sharma
Superlattices and Microstructures 113 (2018) 502e509
341. Transition from n- to p-type conduction concomitant with enhancement of figure-of-merit in Pb doped bismuth telluride: Material to device development
Anil K. Bohra, Ranu Bhatt, Ajay Singh, Shovit Bhattacharya, Ranita Basu, K.N. Meshram, Shaibal K. Sarkar, Pramod Bhatt, P.K. Patro, **D.K. Aswal,** K.P. Muthe, S.C. Gadkari
Materials and Design 159 (2018) 127–137
342. Triluminescent Functional Composite Pigment for Non-Replicable Security Codes to Combat Counterfeiting
Amit K. Gangwar, Kanika Nagpal and Bipin K. Gupta
ChemistrySelect 2018, 3, 9627–9633

CONTENTS

343. Trimetallic Au/Pt/Ag based nanofluid for enhanced antibacterial response
Navneet Yadav, Aashit Kumar Jaiswal, Kajal Kumar Dey, Virendra Bahadur Yadav,
Gopal Nath, **Avanish Kumar Srivastava**, Raja Ram Yadav
Materials Chemistry and Physics 218 (2018) 10–17
344. Tunable Mechanical, Electrical, and Thermal Properties of Polymer Nanocomposites
through GMA Bridging at Interface
Payal Mazumdar, **Sreekumar Chockalingam**, Sunita Rattan and **Bipin Kumar Gupta**
ACS Omega 2018, 3, 3675–3687
345. Tuneable Physicochemical Properties of Thermally Annealed Graphene Oxide Powder
and Thin Films
Manjri Singh, Pooja Saini, **Bhanu P. Singh**, **Priti Singh**, Ram P. Tandon,
Ajit K. Mahapatro, and **Surinder P. Singh**
Journal of Nanoscience and Nanotechnology Vol. 18, 1763–1771, 2018
346. Tuning the thermoelectric properties by manipulating copper in Cu₂SnSe₃ system
Shyam Prasad K, Ashok Rao, Benedict Christopher, **Ruchi Bhardwaj**,
Nagendra Singh Chauhan, Safdar Abbas Malik, Ngo Van Nong, B.S. Nagaraja,
Riya Thomas
Journal of Alloys and Compounds 748 (2018) 273e280
347. Tuning violet to green emission in luminomagnetic Dy,Er co-doped ZnO nanoparticles
R.K. Kalaiezhily, G. Saravanan, V. Asvini, **N. Vijayan**, K. Ravichandran,
Ceramics International 44 (2018) 19560–19569
348. Tunneling current in magnetic-ferroelectric-superconducting heterostructures
Ravikant, **Rajib K. Rakshit**, **Manju Singh**, R. S. Katiyar, **V. N. Ojha** and
Ashok Kumar,
EPL, 122 (2018) 57002
349. Two-Dimensional Double Hydroxide Nanoarchitecture with High Areal and Volumetric
Capacitance
Abhay D. Deshmukh, Akanksha R. Urade, Alisha P. Nanwani, Kavita A. Deshmukh,
Dilip R. Peshwe, Patchaiyappan Sivaraman, Sanjay J. Dhoble and
Bipin Kumar Gupta
ACS Omega 2018, 3, 7204–7213
350. Ultrafast adsorption of organic dyes by activated-carbon@Fe₃O₄ nanoscale
composites: An effective solution for water purification
Parveen Saini, **Rahul Sharma**, **R P Pant** & **R K Kotnala**
Indian Journal of Pure & Applied Physics Vol. 56, March 2018, pp. 187-195
351. Ultrafast Carrier dynamics of In_xGa_{1-x}N nanostructures grown directly on Si (111)
Praveen Kumar, Pooja Devi, P.E.D.S. Rodriguez, Manish Kumar, V.D. Shivling,
Richard Noetzel, **Chhavi Sharma**, R.K. Sinha, **Mahesh Kumar**
Optical Materials 79 (2018) 475–479

CONTENTS

352. Understanding the Influence of Open-waste Burning on Urban Aerosols using Metal Tracers and Lead Isotopic Composition
Sudhanshu Kumar, Shankar Gopala Aggarwal, Bighnaraj Sarangi,
Julien Malherbe, Julien P.G. Barre, Sylvain Berail, Fabienne Séby, Olivier F.X. Donard
Aerosol and Air Quality Research, 18: 2433–2446, 2018
353. Unexplored photoluminescence from bulk and mechanically exfoliated few layers of Bi₂Te₃
Bipin Kumar Gupta, Rabia Sultana, Satbir Singh, Vijeta Singh, Geet Awana, Anurag Gupta, Bahadur Singh, **A. K. Srivastava,** O. N. Srivastava, **S. Auluck & V. P. S. Awana**
Scientific Reports | (2018) 8:9205
354. Unipolar resistive switching in sol-gel synthesized strontium titanate thin films
Atul Thakre, Ashok Kumar
Vacuum 151 (2018) 182e184
355. Valence State of Eu and Superconductivity in Se-Substituted EuSr₂Bi₂S₄F₄ and Eu₂SrBi₂S₄F₄
Zeba Haque, Gohil Singh Thakur, Ganesan Kalai Selvan, Theresa Block, Oliver Janka, Rainer Pöttgen, **Amish G. Joshi,** Rangasamy Parthasarathy, Sonachalam Arumugam, Laxmi Chand Gupta, and Ashok Kumar Ganguli,
Inorg. Chem. 2018, 57, 37–44
356. Visible-Light-Responsive Silicene-Structured Mixed-Cationic CdBiO₂Br Nanosheets: Layer Structure Design Promoting Charge Separation and Oxygen Activation Reactions
Hongwei Huang, Ali H. Reshak, **Sushil Auluck,** Shifeng Jin, Na Tian, Yuxi Guo and Yihe Zhang
J. Phys. Chem. C 2018, 122, 2661–2672
357. WO₃-doped LiF as gate dielectric for p-channel vertical organic field effect transistor applications
Ritu Verma, C.K. Suman, Ritu Srivastava
Thin Solid Films 666 (2018) 156–160
358. X-ray photoelectron spectroscopy study on adsorption property of harmful air pollutants on zeolite prepared from fly ash
Siddharth, S Maiti, H Raj, R S Bisht, A K Minocha, S K Panigrahi, S Alexandre, Sameer and **M Singh**
Mater. Res. Express 5 (2018) 085507
359. X-ray Photoelectron Spectroscopy, Magnetotransport and Magnetisation Study of Nb₂Pd₅ Superconductor
Reena Goyal, A. K. Srivastava, Monu Mishra, Govind Gupta, Rajveer Jha, **V. P. S. Awana**
J Supercond Nov Magn (2018) 31:943–949
360. Zinc Phthalocyanine Nanowires based Flexible Sensor For Room Temperature Cl⁻ Detection
pooja devi, rajan saini, rajinder singh, A mahajan, R.K Bedi, **D.K.Aswal** and A.K. Debnath *AIP Conf. Proc. 1942, 050084-1–050084-4*

CONTENTS

361. Zinc-Supported Multiwalled Carbon Nanotube Nanocomposite: A Synergism to Micronutrient Release and a Smart Distributor To Promote the Growth of Onion Seeds in Arid Conditions
Vinay Kumar, Divya Sachdev, Renu Pasricha, **Priyanka H. Maheshwari** and Neetu Kumra Taneja
ACS Appl. Mater. Interfaces 2018, 10, 36733–36745