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2.	A Coplanar Microstrip Antenna as a Dosimetric E-field Probe for GSM Frequencies <b>N. Narang, S. K. Dubey, P. S. Negi and V. N. Ojha</b> <i>MAPAN-Journal of Metrology Society of India</i> (June 2017) 32(2):143–147
3.	A facile non-photocatalytic technique for hydrogen gas production by hydroelectric cell <b>Jyoti Shah, Shipra Jain, Abha Shukla, Rekha Gupta, Ravinder Kumar Kotnala</b> <i>International Journal of Hydrogen Energy</i> 42(2017) 30584-30590 doi.org/10.1016/j.ijhydene.2017.10.105
4.	A highly efficient PTB7-Th polymer donor bulk hetero-junction solar cell with increased open circuit voltage using fullerene acceptor CNPC70BM P. Nagarjuna, Anirban Bagui, <b>Vinay Gupta</b> , Surya Prakash Singh <i>Organic Electronics</i> 43 (2017) 262e267 doi.org/10.1016/j.orgel.2017.01.015
5.	A Highly Responsive Self-Driven UV Photodetector Using GaN Nanoflowers <b>Neha Aggarwal, Shibin Krishna, Alka Sharma, Lalit Goswami, Dinesh Kumar, Sudhir Husale, and Govind Gupta</b> <i>Electron. Mater.</i> 2017, 1700036 DOI: 10.1002/aelm.201700036
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7.	A novel electroluminescent device based on a reduced graphene oxide wrapped phosphor (ZnS:Cu,Al) and hexagonal-boron nitride for high-performance luminescence <b>Bipin Kumar Gupta, Satbir Singh, Garima Kedawat, Kanika, Pawan Kumar, Amit Kumar Gangwar, Tharangattu N. Narayanan, Angel A. Marti, Robert Vajtaie and P. M. Ajayane</b> <i>Nanoscale</i> , 2017, 9, 5002–5008 DOI: 10.1039/c6nr09302g
8.	A simple fluorene core-based non-fullerene acceptor for high performance organic solar cells Suman, Anirban Bagui, Ram Datt, <b>Vinay Gupta</b> and Surya Prakash Singh <i>Chem. Commun.</i> , 2017, 53, 12790--12793 DOI: 10.1039/c7cc08237a
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<b>23.</b>	Analyses of significant features of L-Prolinium Picrate single crystal: An excellent material for non linear optical applications <b>Kanika Thukral , N. Vijayan , Mahak Vij , C.M. Nagaraja , V. Jayaramakrishnan , M.S. Jayalakshmy , Rajni Kant</b> <i>Materials Chemistry and Physics</i> 194 (2017) 90e96
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<b>32.</b>	Applications of Nanomaterials in Dental Science: A Review Jitendra Sharan, Shivani Singh, Shantanu V. Lale, <b>Monu Mishra</b> , Veena Koul, and Om. P. Kharbanda <i>Journal of Nanoscience and Nanotechnology Vol. 17, 2235–2255, 2017</i>
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<b>45.</b>	Characteristics of absorbing aerosols during winter foggy period over the National Capital Region of Delhi: Impact of planetary boundary layer dynamics and solar radiation flux S. Tyagi , S. Tiwari , A. Mishra , <b>S. Singh</b> , Philip K. Hopke , Surender Singh , S.D. Attri <i>Atmospheric Research 188 (2017) 1–10 doi.org/10.1016/j.atmosres.2017.01.001</i>
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<b>72.</b>	Design of Microstrip Sensor for Non invasive Blood Glucose Monitoring <b>Satish ,Kushal Sen</b> <i>2017 International Conference on Emerging Trends &amp; Innovation in ICT (ICEI)</i> <i>DOI: 10.1109/ETIIC.2017.7977001</i>
<b>73.</b>	Determination of defect density, crystallite size and number of graphene layers in graphene analogues using X-ray diffraction and Raman spectroscopy <b>Rahul Sharma, Neakanshika Chadha &amp; Parveen Saini</b> <i>Indian Journal of Pure &amp; Applied Physics Vol. 55, September 2017, pp. 625-629</i>
<b>74.</b>	Determination of Nucleation Kinetics and Crystal Perfection, Optical, Piezoelectric Properties of Semi-organic NLO Single Crystal-Sodium Acid Phthalate Hemihydrate Senthilkumar Chandran , Rajesh Paulraj, P. Ramasamy , K. K. Maurya <i>J Inorg Organomet Polym (2017) 27:1383–1390 DOI 10.1007/s10904-017-0592-y</i>
<b>75.</b>	Development and Characterization of a Diaphragm-Shaped Force Transducer for Static Force Measurement <b>R. Kumar, B. D. Pant and S. Maji</b> <i>Mapan-Journal of Metrology Society of India (September 2017) 32(3):167–174</i> <i>DOI 10.1007/s12647-017-0207-7</i>
<b>76.</b>	Development of an Automated Precision Direct Current Source for Generation of pA Currents Based on Capacitance Charging Method at CSIR-NPL <b>B. Ehtesham, P. S. Bist and T. John</b> <i>MAPAN-Journal of Metrology Society of India (March 2017) 32(1):17–22</i> <i>DOI 10.1007/s12647-016-0186-0</i>
<b>77.</b>	Development of an Automated Precision Direct Current Source for Generation of pA Currents Based on Capacitance Charging Method at CSIR-NPL <b>B. Ehtesham*, P. S. Bist and T. John</b> <i>MAPAN-Journal of Metrology Society of India (March 2017) 32(1):17–22</i> <i>DOI 10.1007/s12647-016-0186-0</i>
<b>78.</b>	Development of InP-based polymer nanocomposites by wet route for optoelectronic devices <b>Shailesh Narain Sharma &amp; Akanksha Singh &amp; Shefali Jain</b> <i>Colloid Polym Sci (2017) 295:985–993</i> <i>DOI 10.1007/s00396-017-4071-3</i>
<b>79.</b>	Development of structurally stable electrospun carbon nanofibers from polyvinyl alcohol <b>Ashish Gupta and Sanjay R Dhakate</b> <i>Mater. Res. Express 4 (2017) 045021 doi.org/10.1088/2053-1591/aa6a89</i>

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---

<b>80.</b>	Dielectric and electro-optical properties of Mn12- acetate and ferroelectric liquid crystal composite <b>Shilpi Verma, Amit Choudhary, Priti Singh, Ashok M. Biradar &amp; Surinder P.Singh</b> <i>LIQUID CRYSTALS, 2017 VOL. 44, NO. 3, 464–472</i> <i>doi.org/10.1080/02678292.2016.1217568</i>
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<b>86.</b>	Effect of Fe substitution by Co on off-stoichiometric Ni–Fe–Co–Mn–Sn Heusler alloy ribbons <b>S S Mishra, Semanti Mukhopadhyay, T P Yadav, R M Yadav, Sruthi Radhakrishnan, R Vajtai, P M Ajayan, N K Mukhopadhyay, H K Singh and O N Srivastava</b> <i>Mater. Res. Express 4 (2017) 086507 https://doi.org/10.1088/2053-1591/aa81a2</i>
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<b>89.</b>	Effect of graphitization temperature on structure and electrical conductivity of poly-acrylonitrile based carbon fibers <b>Ashish Gupta, Sanjay R. Dhakate, Prabir Pal, Anamika Dey, Parameswar K. Iyer, Dilip K. Singh,</b> <i>Diamond &amp; Related Materials</i> 78 (2017) 31–38 doi.org/10.1016/j.diamond.2017.07.006
<b>90.</b>	Effect of metal layer stacking order on the growth of Cu <sub>2</sub> ZnSnS <sub>4</sub> thin films Narayana Thota, M. Gurubhaskar, M. Anantha Sunil, <b>P. Prathap,</b> Y.P. Venkata Subbaiah, Ashutosh Tiwari <i>Applied Surface Science</i> 396 (2017) 644–651 doi.org/10.1016/j.apsusc.2016.11.001
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<b>92.</b>	Effect of Ni Doping at Pd Site in Nb <sub>2</sub> PdS <sub>5</sub> Superconductor <b>Reena Goyal, · V. P. S. Awana</b> <i>J Supercond Nov Magn</i> (2017) 30:3355–3360 DOI 10.1007/s10948-017-4137-y
<b>93.</b>	Effect of odd-even vehicular restrictions on ambient noise levels at ten sites in Delhi city <b>N. Garag,A.K. Sinha, V Gandhi,R M Bhardwaj &amp; A B akolkar</b> <i>indian journal of pure &amp; applied physics vol 55 september 2017,pp. 687-692</i>
<b>94.</b>	Effect of odd-even vehicular restrictions on ambient noise levels in Delhi city <b>N. Garg, A.K. Sinha, M. Dahiya and P. Kumar</b> <i>2017 International Conference on Advances in Mechanical, Industrial, Automation and Management Systems (AMIAMS)</i>
<b>95.</b>	Effect of phenol red dye on monocrystal growth, crystalline perfection, and optical and dielectric properties of zinc (tris) thiourea sulfate Mohd. Shkir, V. Ganesh, S. AlFaify, <b>K. K. Maurya and N. Vijayan</b> <i>J. Appl. Cryst. (2017). 50, 1716–1724 https://doi.org/10.1107/S1600576717014339</i>
<b>96.</b>	Effect of Plasmonic Enhancement of Light Absorption on the Efficiency of Polymer Solar Cell Manisha Bajpai, <b>Ritu Srivastava</b> and Ravindra Dhar <i>Springer Proceedings in Physics</i> 178, DOI 10.1007/978-3-319-29096-6_42
<b>97.</b>	Effects of chemical composition and mixing state on sizeresolved hygroscopicity and cloud condensation nuclei activity of submicron aerosols at a suburban site in northern Japan in summer Astrid Müller , Yuzo Miyazaki , <b>Shankar G. Aggarwal</b> , Yasuyuki Kitamori, Suresh K. R. Boreddy, and Kimitaka Kawamura <i>Res. Atmos., 122, 9301–9318, doi:10.1002/2017JD027286.</i>

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<b>98.</b>	Effects of spin-orbit coupling on the structural, electronic and magnetic properties of 3C-BaIrO <sub>3</sub> <b>Vijeta Singh, J.J. Pulikkotil</b> <i>Physica B</i> 519 (2017) 59–62 <a href="http://dx.doi.org/10.1016/j.physb.2017.05.043">http://dx.doi.org/10.1016/j.physb.2017.05.043</a>
<b>99.</b>	Corrigendum to “Efficient electro-oxidation of methanol using PtCo nanocatalysts supported reduced graphene oxide matrix as anode for DMFC” [Int J Hydrogen Energy 42 (2017)10238e10247] <b>Richa Baronia , Jyoti Goel , Shraddha Tiwari , Priti Singh ,Dinesh Singh , Surinder P. Singh, S.K. Singhal ,</b> <i>international journal of hydrogen energy</i> 42 (2017) 16909 <a href="http://dx.doi.org/10.1016/j.ijhydene.2017.03.011">doi.org/10.1016/j.ijhydene.2017.03.011</a>
<b>100.</b>	Efficient electro-oxidation of methanol using PtCo nanocatalysts supported reduced graphene oxide matrix as anode for DMFC Richa Baronia , Jyoti Goel , <b>Shraddha Tiwari</b> , Priti Singh , Dinesh Singh, Surinder P. Singh , S.K. Singhal <i>international journal of hydrogen energy</i> 42 ( 2017) 10238e10247 <a href="http://dx.doi.org/10.1016/j.ijhydene.2017.03.011">http://dx.doi.org/10.1016/j.ijhydene.2017.03.011.</a>
<b>101.</b>	Efficient photocatalytic and photovoltaic applications with nanocomposites between CdTe QDs and an NTU-9 MOF Rajnish Kaur, <b>Aniket Rana, Rajiv K. Singh</b> , Varun A. Chhabra, Ki-Hyun Kim and Akash Deep <i>This journal is © The Royal Society of Chemistry 2017 RSC Adv.</i> , 2017, 7, 29015–29024 <i>DOI: 10.1039/c7ra04125j</i>
<b>102.</b>	Elastic and anelastic relaxation behaviour of perovskite multiferroics II: PbZr0.53Ti0.47O <sub>3</sub> (PZT)–PbFe0.5Ta0.5O <sub>3</sub> (PFT) J. A. Schiemer, I. Lascu, R. J. Harrison, <b>A. Kumar</b> , R. S. Katiyar, D. A. Sanchez, N. Ortega, C. Salazar Mejia, W. Schnelle, H. Shinohara, A. J. F. Heap, R. Nagaratnam, S. E. Dutton, J. F. Scott, B. Nair, N. D. Mathur, and M. A. Carpenter, <i>J Mater Sci</i> (2017) 52:285–304 DOI 10.1007/s10853-016-0330-9
<b>103.</b>	Electrical, Thermal and Spectroscopic Characterization of Bulk Bi <sub>2</sub> Se <sub>3</sub> Topological Insulator <b>Rabia Sultan, Geet Awana , Banabir Pal , P. K. Maheshwari, Monu Mishra, Govind Gupta, Anurag Gupta, S. Thirupathaiah ,V. P. S. Awana</b> <i>J Supercond Nov Magn</i> (2017) 30:2031–2036 DOI 10.1007/s10948-017-4173-7
<b>104.</b>	Electrochemical energy storage performance of electrospun CoMn <sub>2</sub> O <sub>4</sub> nanofibers Sara Alkhalfaf , C.K. Ranaweera , P.K. Kahol , K. Siam , H. Adhikari , S.R. Mishra , Felio Perez , <b>Bipin Kumar Gupta</b> , K. Ramasamy , Ram K. Gupta <i>Journal of Alloys and Compounds</i> 692 (2017) 59e66 <a href="http://dx.doi.org/10.1016/j.jallcom.2016.09.005">doi.org/10.1016/j.jallcom.2016.09.005</a>

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<b>105.</b>	Electrochemical Impedance Analysis of Biofunctionalized Conducting Polymer-Modified Graphene-CNTs Nanocomposite for Protein Detection <b>Shobhita Singal, Avanish K. Srivastava ,Rajesh</b> <i>Nano-Micro Lett.</i> (2017) 9:7 DOI 10.1007/s40820-016-0108-2
<b>106.</b>	Electromagnetic shielding behavior of polyaniline using Red Mud (industrial waste) as filler in the X e band (8.2e12.4 GHz) frequency range Anu Pande , Preeti Gairola , <b>Pradeep Sambyal</b> , S.P. Gairola , Vinod Kumar , Kuldeep Singh , <b>S.K. Dhawan</b> <i>Materials Chemistry and Physics</i> 189 (2017) 22e27 <i>doi.org/10.1016/j.matchemphys.2016.12.045</i>
<b>107.</b>	Electron beam modified zinc phthalocyanine thin films for radiation dosimeter application Nishant Chaudhary, Ajay Singhb, <b>D.K. Aswalb</b> , A.K. Debnathb, S. Samanta, S.P. Koiry, S. Sharma, K. Shah, S. Acharya, K.P. Muthe, S.C. Gadkari <i>Synthetic Metals</i> 231 (2017) 143–152 <i>doi.org/10.1016/j.synthmet.2017.06.008</i>
<b>108.</b>	Electronic excitation induced modifications of structural, electrical and optical properties of Cu-C60 nanocomposite thin films H. Inani , R. Singhal , P. Sharma , R. Vishnoi , S. Ojha , <b>S. Chand</b> , G.D. Sharma <i>Nuclear Instruments and Methods in Physics Research B</i> 407 (2017) 73–79 <i>doi.org/10.1016/j.nimb.2017.05.066</i>
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<b>111.</b>	Emission inventory of trace gases from road transport in India <b>Richa Singh, Chhemendra Sharma</b> , Madhoolika Agrawal <i>Transportation Research Part D</i> 52 (2017) 64–72 <i>doi.org/10.1016/j.trd.2017.02.011</i>
<b>112.</b>	Encapsulation of Barium Ferrite and Reduced Graphene Oxide in poly(o-toluidine) as a Barrier for Electromagnetic Radiations Preeti Gairola, Anil Ohlan, <b>S.P. Gairola</b> , Vivek Verma, <b>S.K. Dhawan</b> , and L.P. Purohit <i>Cryst. Res. Technol.</i> 2017, 52, 1700117 DOI: 10.1002/crat.201700117
<b>113.</b>	Enchancment in viscoelastic properties of flake-shaped iron based magnetorheological fluid using ferrofluid <b>Noor Jahan,Saurabh Pathak,Komal Jaina, R.P.Pant</b> , <i>Colloids and Surfaces A</i> 529 (2017) 88–94 <i>doi.org/10.1016/j.colsurfa.2017.05.057</i>

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<b>114.</b>	Energy transfer ( $\text{In}_3\beta$ / $\text{Eu}_3\beta$ ) based Polyvinyl Alcohol polymer composites for bright red luminescence K. Naveen Kumar , L. Vijayalakshmi , Jong Su Kim , Jaesool Shim ,Migyung Cho , Misook Kang , <b>Bipin Kumar Gupta</b> <i>Optical Materials</i> 70 (2017) doi.org/10.1016/j.optmat.2017.05.012
<b>115.</b>	Enhanced ammonia sensing characteristics of tungsten oxide decorated polyaniline hybrid nanocomposites S.B. Kulkarni , Y.H. Navale , S.T. Navale , N.S. Ramgir , A.K. Debnath , S.C. Gadkari, S.K. Gupta , <b>D.K. Aswal</b> , V.B. Patil <i>Organic Electronics</i> 45 (2017) 65e73 doi.org/10.1016/j.orgel.2017.02.030
<b>116.</b>	Enhanced bipolar resistive switching behavior in polar Cr-doped barium titanate thin films without electro-forming process <b>Atul Thakre, and Ashok Kumar</b> <i>AIP ADVANCES</i> 7, 125115 (2017) doi: 10.1063/1.5004232
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<b>118.</b>	Enhanced dielectric properties and suppressed leakage current density of PVDF composites flexible film through small loading of submicron Ba0.7Sr0.3TiO3 crystallites Pallavi Gupta · <b>Ashok Kumar</b> · Monika Tomar · Vinay Gupta · Dwijendra P. Singh <i>J Mater Sci: Mater Electron</i> (2017) 28:11806–11812 DOI 10.1007/s10854-017-6987-2
<b>119.</b>	Enhanced flux pinning in YBCO multilayer films with BCO nanodots and segmented BZO nanorods Mika Malmivirta , Hannes Rijckaert, Ville Paasonen, Hannu Huhtinen, Teemu Hynninen, <b>Rajveer Jha, Veerpal Singh</b> Awana, Isabel Van Driessche & Petriina Paturi <i>SCienTifiC Reports</i> / 7: 14682 / DOI:10.1038/s41598-017-13758-6
<b>120.</b>	Enhanced photoresponse of Cu <sub>2</sub> ZnSn(S, Se) <sub>4</sub> based photodetector invisible range <b>K.S.Gour, O.P. Singh , Biplab Bhattacharyya, R. Parmar, Sudhir Husale,T.D.Senguttuvan , V.N. Singh,</b> <i>Journal of Alloys and Compounds</i> 694 (2017) 119e123 doi.org/10.1016/j.jallcom.2016.09.299
<b>121.</b>	Enhanced thermoelectric performance of Pb doped Cu <sub>2</sub> SnSe <sub>3</sub> synthesized employing spark plasma sintering K. Shyam Prasad, Ashok Rao, <b>Kriti Tyagia, Nagendra Singh Chauhan, Bhasker Gahtori,Sivaiah Bathula, Ajay Dhar</b> <i>Physica B</i> 512 (2017) 39–44 doi.org/10.1016/j.physb.2017.02.021

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<b>122.</b>	Enhancement in electrical and magnetic properties with Ti-doping in Bi0.5La0.5Fe0.5Mn0.5O3 Rahul Singh, Prince Kumar Gupta, Shiv Kumar, <b>Amish G. Joshi</b> , A. K. Ghosh, S. Patil, and Sandip Chatterjee <i>Journal of Applied Physics</i> 121, 154101 (2017); doi.org/10.1063/1.4981876
<b>123.</b>	Enhancement in thermoelectric performance of SiGe nanoalloys dispersed with SiC nanoparticles <b>Sivaiah Bathula</b> , M. Jayasimhadri, <b>Bhasker Gahtori</b> , Anil Kumar, <b>A. K. Srivastavaa and Ajay Dhar</b> <i>Phys. Chem. Chem. Phys.</i> , 2017, 19, 25180 DOI: 10.1039/c7cp04240j
<b>124.</b>	Evaluation and Analysis of Environmental Noise Pollution in Seven Major Cities of India <b>Naveen GARG</b> , A.K. SINHA, M. DAHIYA, V. GANDHI R.M. BHARDWAJ, A.B. AKOLKAR <i>ARCHIVES OF ACOUSTICS</i> Vol. 42, No. 2, pp. 175–188 (2017)
<b>125.</b>	Evaluation of air dielectric four-terminal-pair capacitance standards using resonance frequency of impedance elements <b>Satish , Sachin Kumar, Babita, Thomas John, A.K. Saxena</b> <i>Measurement</i> 100 (2017) 176–182 doi.org/10.1016/j.measurement.2016.12.052
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<b>127.</b>	Evidence of strong magneto-dielectric coupling and enhanced electrical insulation at room temperature in Nd and Mn co-doped bismuth ferrite Shalini Kumari, Dhiren K. Pradhan, Proloy T. Das, Nora Ortega, Kallol Pradhan, <b>Ashok Kumar</b> , J. F. Scott, and Ram S. Katiyar <i>Journal of Applied Physics</i> 122, 144102 (2017) doi.org/10.1063/1.4994560
<b>128.</b>	Experimental evidence of electronic polarization in a family of photo-ferroelectrics <b>Hitesh Borkar, Vaibhav Rao</b> , acg M. Tomar, Vinay Gupta, J. F. Scott and <b>Ashok Kumar</b> <i>RSC Adv.</i> , 2017, 7, 12842 DOI: 10.1039/c7ra00500h
<b>129.</b>	Experimental observation of spatially resolved photoluminescence intensity distribution in dual mode upconverting nanorod bundles <b>Pawan Kumar, Satbir Singh, V.N.Singh, Nidhi Singh, R. K. Gupta &amp; Bipin Kumar Gupta</b> <i>Scientific Reports</i> / 7:42515 / DOI: 10.1038/srep42515
<b>130.</b>	Experimental realisation of parallel optical logic gates andcombinational logic using multiple beam interference <b>Ruchi Bhardwaj, Saurabh Babu Saxena, Parag Sharma, V.K. Jaiswal, Ranjana Mehrotra</b> <i>Optik</i> 128 (2017) 253–263 http://dx.doi.org/10.1016/j.ijleo.2016.10.033

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<b>131.</b>	Experimental study of wavefront distortion in the dark hollow beam generated using axicon <b>Rajeev Dwivedi, V.K. Jaiswal, Parag Sharma, Ranjana Mehrotra</b> <i>Optik</i> 140 (2017) 239–247 doi.org/10.1016/j.jleo.2017.04.059
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<b>133.</b>	Exploring the ferromagnetic behaviour of Zn <sub>1-x</sub> ZrxO <sub>1±d</sub> nanostructures synthesized through gel-combustion route Imran Khan , Anish Khan, Shakeel Khan , Mohd Arsalan , <b>R.K. Kotnala</b> , Weqar Ahmad Siddiqui <i>Journal of Alloys and Compounds</i> 727 (2017) 1338e1343 doi.org/10.1016/j.jallcom.2017.08.127
<b>134.</b>	Fabrication of non-polar GaN based highly responsive and fast UV photodetector <b>Abhiram Gundimeda, Shibin Krishna, Neha Aggarwal, Alka Sharma, Nita Dilawar Sharma, K. K. Maurya, Sudhir Husale, and Govind Gupta</b> <i>Appl. Phys. Lett.</i> 110, 103507 (2017); doi: 10.1063/1.4978427
<b>135.</b>	Fabrication of non-polar GaN based highly responsive and fast UV photodetector [Erratum] <b>Abhiram Gundimeda, Shibin Krishna, Neha Aggarwal, Alka Sharma, Nita Dilawar Sharma, K. K. Maurya, Sudhir Husale, and Govind Gupta</b> <i>Appl. Phys. Lett.</i> 111, 019901 (2017); <a href="http://dx.doi.org/10.1063/1.4991370">http://dx.doi.org/10.1063/1.4991370</a>
<b>136.</b>	Facile route to produce spherical and highly luminescent Tb <sub>3</sub> b doped Y <sub>2</sub> O <sub>3</sub> nanophosphors Deepak Kumar, Manoj Sharma , <b>D. Haranath</b> , O.P. Pandey <i>Journal of Alloys and Compounds</i> 695 (2017) 726e736 <a href="http://dx.doi.org/10.1016/j.jallcom.2016.06.124">http://dx.doi.org/10.1016/j.jallcom.2016.06.124</a>
<b>137.</b>	Facile synthesis and characterization of pH-dependent pristine MgO nanostructures for visible light emission <b>Neeraj Marwaha, Bipin Kumar Gupta, Rajni Verma, and Avanish Kumar Srivastava</b> <i>J Mater Sci</i> (2017) 52:10480–10484 DOI 10.1007/s10853-017-1231-2
<b>138.</b>	Facile synthesis of bulk SnO <sub>2</sub> and ZnO tetrapod based grapheme nanocomposites for optical and sensing application <b>J.S. Tawale , Ashavani Kumar , S.R. Dhakate , A.K. Srivastav</b> <i>Materials Chemistry and Physics</i> 201 (2017) 372e383 <a href="http://dx.doi.org/10.1016/j.matchemphys.2017.08.028">http://dx.doi.org/10.1016/j.matchemphys.2017.08.028</a>
<b>139.</b>	Fermi surface and band structure of BiPd from ARPES studies H. Lohani , P. Mishra , <b>Anurag Gupta , V.P.S. Awana , B.R. Sekhar</b> <i>Physica C: Superconductivity and its applications</i> 534 (2017) 13–18 <a href="http://dx.doi.org/10.1016/j.physc.2016.12.004">http://dx.doi.org/10.1016/j.physc.2016.12.004</a>

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<b>140.</b>	Ferroelectric memory resistive behavior in BaTiO <sub>3</sub> /Nb doped SrTiO <sub>3</sub> heterojunctions <b>Pooja Singh, P.K.Rout, Manju Singh ,R.K.Rakshit, Anjana Dogra</b> <i>Thin Solid Films</i> 643 (2017) 60–64 <a href="http://dx.doi.org/10.1016/j.tsf.2017.06.024">http://dx.doi.org/10.1016/j.tsf.2017.06.024</a>
<b>141.</b>	Few layered graphene oxide thin films: A potential matrix for immunosensors <b>Namrata Pachauri, Shilpi Verma, Priti Singh &amp; Surinder P. Singh</b> <i>INTEGRATED FERROELECTRICS</i> 2017, VOL. 184, 85–91 <a href="https://doi.org/10.1080/10584587.2017.1368790">doi.org/10.1080/10584587.2017.1368790</a>
<b>142.</b>	FIB synthesis of Bi <sub>2</sub> Se <sub>3</sub> 1D nanowires demonstrating the co-existence of Shubnikov–de Haas oscillations and linear magnetoresistance <b>Biplab Bhattacharyya, Alka Sharma1, V P S Awana, T D Senguttuvan, and Sudhir Husale</b> <i>J. Phys.: Condens. Matter</i> 29 (2017) 07LT01 (7pp) doi:10.1088/1361-648X/29/7/07LT01
<b>143.</b>	Fiber optics based surface plasmon resonance for label-free optical sensing <b>Shruti Bhandari, Ved Varun Agrawal &amp; A M Birader</b> <i>Indian Journal of Pure &amp; Applied Physics</i> Vol. 55, May 2017, pp. 349-362
<b>144.</b>	Films of Reduced Graphene Oxide with Metal Oxide Nanoparticles Formed at a Liquid/Liquid Interface as Reusable Surface Enhanced Raman Scattering Substrates for Dyes <i>K. Bramhaiah, Vidya N. Singh, C. Kavitha, and Neena S. John</i> <i>Journal of Nanoscience and Nanotechnology</i> Vol. 17, 2711–2719, 2017
<b>145.</b>	Flexo-green Polypyrrole – Silver nanocomposite films for thermoelectric power generation Meetu Bharti , Ajay Singh , Soumen Samanta , A.K. Debnath , <b>D.K. Aswal</b> , K.P. Muthe , S.C. Gadkari <i>Energy Conversion and Management</i> 144 (2017) 143–152 <a href="http://dx.doi.org/10.1016/j.enconman.2017.04.022">http://dx.doi.org/10.1016/j.enconman.2017.04.022</a>
<b>146.</b>	Free-standing flexible MWCNTs bucky paper: Extremely stable and energy efficient supercapacitive electrode Bidhan Pandit, <b>Sanjay R. Dhakate, Bhanu P. Singh</b> , Babasaheb R. Sankpal <i>Electrochimica Acta</i> 249 (2017) 395–403 doi.org/10.1016/j.electacta.2017.08.013
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<b>149.</b>	Ga-doped ZnO as an electron transport layer for PffBT4T-2OD: PC70BM organic solar cells Ramakant Sharma a, Hyunwoo Lee , Kunal Borse , <b>Vinay Gupta , Amish G. Joshi ,</b> Seunghyup Yoo b, Dipti Gupta <i>Organic Electronics</i> 43 (2017) 207e213 doi.org/10.1016/j.orgel.2017.01.028
<b>150.</b>	Graphene nanoplatelets/carbon nanotubes/polyurethane composites as efficient shield against electromagnetic polluting radiations Meenakshi Verma , Sampat Singh Chauhan , <b>S.K. Dhawan ,</b> Veena Choudhary <i>Composites Part B</i> 120 (2017) 118e127 doi.org/10.1016/j.compositesb.2017.03.068
<b>151.</b>	Graphene oxide–metal nanocomposites for cancer biomarker detection <b>Md. Azahar Ali, Chandan Singh, Saurabh Srivastava, Prasad Admane, Ved V. Agrawal, Gajjala Sumana,</b> Renu John, Amulya Panda, Liang Dong and Bansi D. Malhotra <i>RSC Adv.</i> , 2017, 7, 35982 DOI: 10.1039/c7ra05491b
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<b>154.</b>	High rate capability and cyclic stability of hierarchically porous Tin oxide (IV)–carbon nanofibers as anode in lithium ion batteries <b>Ashish Gupta, Sanjay R. Dhakate, P. Gurunathan, K. Ramesha</b> <i>Appl Nanosci</i> (2017) 7:449–462 DOI 10.1007/s13204-017-0577-8
<b>155.</b>	High transmittance contrast in amorphous to hexagonal phase of Ge2Sb2Te5:Reversible NIR-window Palwinder Singh, A. P. Singh, Neetu Kanda, <b>Monu Mishra, Govind Gupta, and Anup Thakur</b> <i>Appl. Phys. Lett.</i> 111, 261102 (2017); doi: 10.1063/1.5009610
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<b>167.</b>	Induced magnetoelectric coupling and photoluminescence response in solutionprocessed CoFe2O4/Pb0.6Sr0.4TiO3 multiferroic composite film <b>Kanchan Bala, Jyoti Shah, Nainjeet Singh Negi &amp; Ravinder K. Kotnala</b> <i>Integrated Ferroelectrics, 183:1, 110-125, DOI: 10.1080/10584587.2017.1375834</i>
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<b>189.</b>	Iron acquisition in maize ( <i>Zea mays L.</i> ) using <i>Pseudomonas siderophore</i> Stuti Sah, <b>Nahar Singh</b> , Rajni Singh <i>3 Biotech</i> (2017) 7:121 DOI 10.1007/s13205-017-0772-z
<b>190.</b>	Irreversible tunability of through-thickness electrical conductivity of polyaniline-based CFRP by de-doping Vipin Kumar , Tomohiro Yokozeki , Teruya Goto , Tatsuhiro Takahashi , <b>Sanjay R. Dhakate , Bhanu P. Singh</b> <i>Composites Science and Technology</i> 152 (2017) 20e26 doi.org/10.1016/j.compscitech.2017.09.005
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<b>197.</b>	Li-doped ZnO nanostructures for the organic light emitting diode application Payal Manzhi , <b>Md. B. Alam , Reena Kumari , Richa Krishna , Rajiv Kumar Singh ,Ritu Srivastava , O.P. Sinha</b> <i>Vacuum 146 (2017) 462e467 doi.org/10.1016/j.vacuum.2017.07.018</i>
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<b>201.</b>	Low frequency accelerometer calibration using an optical encoder sensor <b>N. Garg , M.I. Schiefer</b> <i>Measurement</i> 111 (2017) 226–233 <a href="http://dx.doi.org/10.1016/j.measurement.2017.07.031">http://dx.doi.org/10.1016/j.measurement.2017.07.031</a>
<b>202.</b>	Low temperature crystallization of Cu <sub>2</sub> ZnSnSe <sub>4</sub> thin films using binary selenide precursors Rhishikesh Mahadev Patil , Dipak Ramdas Nagapure , G. Swapna Mary , G. Hema Chandra , M. Anantha Sunil , Y. P. Venkata Subbaiah , <b>P. Prathap</b> , Mukul Gupta , R. Prasada Rao <i>J Mater Sci: Mater Electron</i> (2017) 28:18244–18253 DOI 10.1007/s10854-017-7773-x
<b>203.</b>	Low Temperature Laser Molecular Beam Epitaxy and Characterization of AlGaN Epitaxial Layers <b>Prashant Tyagi, Ramesh Ch., S.S. Kushvaha and M. Senthil Kumar</b> <i>AIP Conf. Proc.</i> 1832, 080070-1–080070-3; doi: 10.1063/1.4980530
<b>204.</b>	Low-temperature nematic phase in asymmetrical 1,3,4-oxadiazole bent-core liquid crystals possessing lateral methoxy group Sandip Kumar Saha, Manoj Kumar Paul, Achu Chandran, P. K. Khanna & <b>A. M. Biradar</b> <i>Liquid Crystals</i> , 2017 VOL. 44, NO. 11, 1739–1750
<b>205.</b>	Low-temperature thermoelectric properties of Pb doped Cu <sub>2</sub> SnSe <sub>3</sub> Shyam Prasad K, Ashok Rao,, <b>Bhasker Gahtori, Sivaiah Bathula, Ajay Dhar</b> , Chia-Chi Changc, Yung-Kang Kuoc, <i>Physica B</i> 520 (2017) 7–12 doi.org/10.1016/j.physb.2017.06.002
<b>206.</b>	Magnetic controlled voltage in the pseudo-ternary multiferroic BiFeO <sub>3</sub> –PbTiO <sub>3</sub> –BaTiO <sub>3</sub> Naveen Kumar, Bastola Narayan, Sanjeev Kumar, K C Verma, Rajeev Ranjan, <b>Jyoti Shah and R K Kotnala</b> <i>Mater. Res. Express</i> 4 (2017) 095701 doi.org/10.1088/2053-1591/aa7af9
<b>207.</b>	Magnetic Fluid Based High Precision Temperature Sensor <b>Saurabh Pathak, Komal Jain, Noorjahan, Vinod Kumar, and Rajendra Prasad Pant</b> <i>Ieee Sensors Journal</i> , VOL. 17, NO. 9, MAY 1, 2017
<b>208.</b>	Magnetic reversal dynamics of NiFe-based artificial spin ice: Effect of Nb layer in normal and superconducting state <b>M. Kaur, Anurag Gupta, D. Varandani, Apoorva Verma, T. D. Senguttuvan, B. R. Mehta, and R. C. Budhani</b> <i>Journal of Applied Physics</i> 122, 193903 (2017); doi:10.1063/1.4990622
<b>209.</b>	Magnetic Susceptibility and High Field Magneto-transport of Silver-Added Bi-2223 Superconductor: a Revisit <b>P. Rani1, R. S. Meena · A. K. Hafiz · V. P. S. Awana</b> <i>J Supercond Nov Magn</i> (2017) 30:1737–1747 DOI 10.1007/s10948-017-3994-8

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<b>210.</b>	Magnetically tunable dielectric, impedance and magnetoelectric response in MnFe <sub>2</sub> O <sub>4</sub> /(Pb <sub>1-x</sub> Sr <sub>x</sub> )TiO <sub>3</sub> composites thin films <b>Kanchan Bala,, R.K. Kotnala, N.S. Negia</b> <i>Journal of Magnetism and Magnetic Materials</i> 424 (2017) 256–266 <a href="https://doi.org/10.1016/j.jmmm.2016.10.059">doi.org/10.1016/j.jmmm.2016.10.059</a>
<b>211.</b>	Magneto-electric response in Pb substituted M-type barium-hexaferrite <b>Pawan Kumar, Anurag Gaur, R.K. Kotnala</b> <i>Ceramics International</i> 43 (2017) 1180–1185 . <a href="https://doi.org/10.1016/j.ceramint.2016.10.060">doi.org/10.1016/j.ceramint.2016.10.060</a>
<b>212.</b>	Measurement Automation to Implement Evaluation Procedure of Four-Terminal-Pair Capacitance Standards Using S-Parameters <b>Satish , Babita, B. Khurana and T. John</b> <i>Mapan-Journal of Metrology Society of India (September 2017)</i> 32(3):175–181 <i>DOI</i> 10.1007/s12647-017-0211-y
<b>213.</b>	Mechanical properties of thermoelectric n-type magnesium silicide synthesized employing in situ spark plasma reaction sintering <b>Saravanan Muthiah, R C Singh, B D Pathak and Ajay Dhar</b> <i>Mater. Res. Express</i> 4 (2017) 075507 <a href="https://doi.org/10.1088/2053-1591/aa76a8">doi.org/10.1088/2053-1591/aa76a8</a>
<b>214.</b>	Microstructural characteristics and optical performance of nano-structured thin films of tin oxide <b>Parveen Jain, Sukhvir Singh, Azher Majid Siddiqui &amp; Avanish K Srivastava</b> <i>Indian Journal of Pure &amp; Applied Physics</i> Vol. 55, June 2017, pp. 385-393
<b>215.</b>	Mixed valence as a necessary criteria for quasi-two dimensional electron gas in oxide hetero-interfaces <b>Vijeta Singh, J.J. Pulikkotil</b> <i>Solid State Communications</i> 251 (2017) 28–31. <a href="https://doi.org/10.1016/j.ssc.2016.12.007">doi.org/10.1016/j.ssc.2016.12.007</a>
<b>216.</b>	Modeling of air pollutants using least square support vector regression, multivariate adaptive regression spline, andM5 model tree models Ozgur Kisi & Kulwinder Singh Parmar & <b>Kirti Soni</b> & Vahdettin Demir <i>Air Qual Atmos Health</i> (2017) 10:873–883 DOI 10.1007/s11869-017-0477-9
<b>217.</b>	Modeling of Organic Permeable Base Transistor Based on Inverse of Transistor Efficiency (IC/gm) <b>Kalpana Agrawal, Ritu Srivastava, and S. S. Rajput</b> <i>Ieee Transactions On Electron Devices</i> , VOL. 64, NO. 8, AUGUST 2017
<b>218.</b>	Modified ferroelectric/magnetic and leakage current density properties of Co and Sm co-doped bismuth ferrites Balesh Kumar Vashisth , Jarnail S. Bangruwa , Anu Beniwal , S.P. Gairola , <b>Ashok Kumar , Nidhi Singh , Vivek Verma</b> <i>Journal of Alloys and Compounds</i> 698 (2017) 699e705 <a href="https://doi.org/10.1016/j.jallcom.2016.12.278">doi.org/10.1016/j.jallcom.2016.12.278</a>

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219.	Molecular Engineering of Highly Efficient Small Molecule Nonfullerene Acceptor for Organic Solar Cells <b>Suman, Vinay Gupta ,Anirban Bagui and Surya Prakash Singh</b> www.afm-journal.de DOI: 10.1002/adfm.201603820
220.	Molecular structure, vibrational, factor group, optical and second order polarizability analysis of the l-prolinium trichloroacetate: A computational approach <b>Mohd. Shkir, S. Omar, M. Arora, S. AlFaify, V.K. Jain , V. Ganesh</b> Optik 136 (2017) 327–335 http://dx.doi.org/10.1016/j.ijleo.2017.01.112
221.	Molecular-Shape-Induced Efficiency Enhancement in PC61BM and PC71BM Based Ternary Blend Organic Solar Cells <b>Shashi B. Srivastava, Sanjay K. Srivastava, and Samarendra P. Singh,</b> <i>J. Phys. Chem. C</i> 2017, 121, 17104–17111 DOI: 10.1021/acs.jpcc.7b04425
222.	Monte carlo method for evaluation of uncertainty of measurement in brinell hardness scale <b>Harish Kumar, Girija Moona, P K Arora, Abid Haleem, Jasveer Singh, Rajesh Kumar &amp; Anil Kumar</b> <i>Indian Journal of Pure &amp; Applied Physics</i> Vol. 55, June 2017, pp. 445-453
223.	Morphology dependent two photon absorption in plasmonic structures and plasmonic-organic hybrids <b>Kaweri Gambhir, Bhumika Ray, Ranjana Mehrotra, Parag Sharma</b> <i>Optics &amp; Laser Technology</i> 90 (2017) 201–21 .doi.org/10.1016/j.optlastec.2016.12.003
224.	Morphology of ionospheric F2 region variability associated with sudden stratospheric warmings <b>Sumedha Gupta, and A. K. Upadhayaya</b> ©2017. American Geophysical Union 10.1002/2017JA024059
225.	Morphology, Mineralogy and Mixing of Individual Atmospheric Particles Over Kanpur (IGP): Relevance of Homogeneous Equivalent Sphere Approximation in Radiative Models <b>S. K. Mishra, N. Saha, S. Singh, C. Sharma, M. V. S. N. Prasad, S. Gautam, A. Misra, A. Gaur, D. Bhattu, S. Ghosh, A. Dwivedi, R. Dalai, D. Paul, T. Gupta,S. N. Tripathi and R. K. Kotnala</b> <i>Mapan-Journal of Metrology Society of India (September 2017)</i> 32(3):229–241 DOI 10.1007/s12647-017-0215-7
226.	Multichromophore Donor Materials Derived from Diketopyrrolopyrrole and Phenoxazine: Design, Synthesis, and Photovoltaic Performance Kamatham Narayanaswamy, Bommaramoni Yadagiri, Anirban Bagui, <b>Vinay Gupta</b> , and Surya Prakash Singh <i>Eur. J. Org. Chem.</i> 2017, 4896–4904 DOI: 10.1002/ejoc.201700845

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---

<b>227.</b>	Multicolor and white light emitting Tb <sub>3</sub> p/Sm <sub>3</sub> p co-doped zinc phosphate barium titanate glasses via energy transfer for optoelectronic device applications Kaushal Jha , Amit K. Vishwakarma , M. Jayasimhadri, <b>D. Haranath</b> <i>Journal of Alloys and Compounds</i> 719 (2017) 116e124 <a href="https://doi.org/10.1016/j.jallcom.2017.05.076">doi.org/10.1016/j.jallcom.2017.05.076</a>
<b>228.</b>	Multiferroic and magnetoelectric properties of MnFe <sub>2</sub> O <sub>4</sub> /(Pb <sub>0.8</sub> Sr <sub>0.2</sub> )TiO <sub>3</sub> composite films Nainjeet Singh Negi, Kanchan Bala, Pankaj Sharma & <b>Ravinder Kumar Kotnala</b> <i>Philosophical Magazine</i> , 2017 VOL. 97, NO. 4, 269–283
<b>229.</b>	Multiferroic effects in MFe <sub>2</sub> O <sub>4</sub> /BaTiO <sub>3</sub> (M ¼ Mn, Co, Ni, Zn) nanocomposites Kuldeep Chand Verma , Devinder Singh , Sanjeev Kumar , <b>R.K. Kotnala</b> <i>Journal of Alloys and Compounds</i> 709 (2017) 344e355 <a href="https://doi.org/10.1016/j.jallcom.2017.03.145">doi.org/10.1016/j.jallcom.2017.03.145</a>
<b>230.</b>	Multiferroic, magnetoelectric and magneto-impedance properties of NiFe <sub>2</sub> O <sub>4</sub> /(Pb, Sr) TiO <sub>3</sub> bilayer films Nainjeet Singh Negi & Kanchan Bala & <b>Jyoti Shah &amp; Ravinder K. Kotnala</b> <i>J Electroceram</i> (2017) 38:51–62 DOI 10.1007/s10832-016-0059-5
<b>231.</b>	Multifunctional gold coated iron oxide core-shell nanoparticles stabilized using thiolated sodium alginate for biomedical applications Ankur Sood , Varun Arora , <b>Jyoti Shah , R.K. Kotnala</b> , Tapan K. Jain, <i>Materials Science and Engineering C</i> 80 (2017) 274–281 <a href="https://doi.org/10.1016/j.msec.2017.05.079">doi.org/10.1016/j.msec.2017.05.079</a>
<b>232.</b>	Multifunctional Ni-NiO-CNT Composite as High Performing Free Standing Anode for Li Ion Batteries and Advanced Electro Catalyst for Oxygen Evolution Reaction <b>Indu Elizabetha</b> , Anju K. Naird, <b>Bhanu Pratap Singh</b> , Sukumaran Gopukumar <i>Electrochimica Acta</i> 230 (2017) 98–105 doi.org/10.1016/j.electacta.2017.01.189
<b>233.</b>	Multiphase TiO <sub>2</sub> nanostructures: a review of efficient synthesis, growth mechanism, probing capabilities, and applications in bio-safety and health <b>Rajni Verma, Jitendra Gangwar and Avanish K. Srivastava</b> <i>Rsc Adv.</i> , 2017, 7, 44199 DOI: 10.1039/c7ra06925a
<b>234.</b>	Nano-Photonic Structures for Light Trapping in Ultra-Thin Crystalline Silicon Solar Cells <b>Prathap Pathi</b> , Akshit Peer and Rana Biswas <i>Nanomaterials</i> 2017, 7, 17; doi:10.3390/nano7010017
<b>235.</b>	Nanostructured polypyrrole: enhancement in thermoelectric figure of merit through suppression of thermal conductivity Shantanu Misra, Meetu Bharti, Ajay Singh, A K Debnath, <b>D K Aswal</b> and Y Hayakawa <i>Mater. Res. Express</i> 4 (2017) 085007 doi.org/10.1088/2053-1591/aa7b1f
<b>236.</b>	Nanostructured Solar Cells Pushpa Raj Pudasaini, <b>Sanjay K. Srivastava</b> , Yaohui Zhan, Francisco Ruiz-Zepeda, and Bill Pandit <i>International Journal of Photoenergy Volume 2017, Article ID 1289349, 2</i>

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---

<b>237.</b>	Nanostructured tin oxide films: Physical synthesis, characterization, and gas sensing properties S.M. Ingole , S.T. Navale , Y.H. Navale , D.K. Bandgar , F.J. Stadler , R.S. Mane , N.S. Ramgir , S.K. Gupta , <b>D.K. Aswal</b> , V.B. Patil <i>Journal of Colloid and Interface Science</i> 493 (2017) 162–170 <a href="https://doi.org/10.1016/j.jcis.2017.01.025">doi.org/10.1016/j.jcis.2017.01.025</a>
<b>238.</b>	Nanostructured TiO <sub>2</sub> thin films prepared by RF magnetron sputtering for photocatalytic applications Jaspal Singh, Saif A. Khan, <b>J. Shah, R.K. Kotnala</b> , Satyabrata Mohapatra <i>Applied Surface Science</i> 422 (2017) 953–961 <a href="https://doi.org/10.1016/j.apsusc.2017.06.068">doi.org/10.1016/j.apsusc.2017.06.068</a>
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<b>242.</b>	Observation of enhanced multiferroic, magnetoelectric and photocatalytic properties in Sm-Co codoped BiFeO <sub>3</sub> nanoparticles Ghanshyam Arya , Jyoti Yogiraj , Nainjeet Singh Negi , <b>Jyoti Shah , Ravinder Kumar Kotnala</b> <i>Journal of Alloys and Compounds</i> 723 (2017) 983e994 <a href="https://doi.org/10.1016/j.jallcom.2017.06.325">doi.org/10.1016/j.jallcom.2017.06.325</a>
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<b>245.</b>	Observation of transient superconductivity at the LaAlO <sub>3</sub> /SrTiO <sub>3</sub> interface Gopi Nath Daptary, Shelender Kumar, Aveek Bid, <b>Pramod Kumar, Anjana Dogra, R. C. Budhani</b> , Dushyant Kumar, N. Mohanta, A. Taraphder <i>Physical Review B</i> 95, 174502 (2017) DOI: 10.1103/PhysRevB.95.174502
<b>246.</b>	Observation of Zero Field Charge Order Melting in Oxygen Deficient Pr <sub>1-X</sub> CaxMnO <sub>3</sub> Thin Films V. Agarwal, M. K. Srivastava, and <b>H. K. Singh</b> <i>AIP Conf. Proc.</i> 1832, 110046-1–110046-3; doi: 10.1063/1.4980670
<b>247.</b>	One step synthesis of tin oxide nanomaterials and their sintering effect in dye degradation <i>Nirmal Prashanth M, Rajesh Paulraj, Ramasamy P, Vijayan N Optik</i> 135 (2017) 434–445 doi.org/10.1016/j.jleo.2017.01.068
<b>248.</b>	One-Step Synthesis of New Electron Acceptor for High Efficiency Solution Processable Organic Solar Cells P. Nagarjuna, Anirban Bagui, Ashish Garg, <b>Vinay Gupta</b> , and Surya Prakash Singh <i>J. Phys. Chem. C</i> 2017, 121, 26615–26621 DOI: 10.1021/acs.jpcc.7b08167
<b>249.</b>	One-step synthesis of size-controlled CZTS quantum dots <b>Leena Arora , Vidya Nand Singh , G. Partheepan , T. D. Senguttuvan , Kiran Jain</b> <i>Appl Nanosci DOI</i> 10.1007/s13204-015-0404-z
<b>250.</b>	Optical and Thermo-Dynamical Properties of Twist Grain Boundary Phases in Liquid Crystals Manisha Chaudhry and <b>S.S. Bawa</b> <i>Springer Proceedings in Physics</i> 178, DOI 10.1007/978-3-319-29096-6_65
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<b>252.</b>	Optical, magnetic and thermal properties of colloidal suspension of ferrofluids synthesized by laser ablation B K Pandey, A K Shahi, <b>Jyoti Shah, R K Kotnala</b> and Ram Gopal <i>Mater. Res. Express</i> 4 (2017) 075001 doi.org/10.1088/2053-1591/aa7113
<b>253.</b>	Optically controlled polarization in highly oriented ferroelectric thin films <b>Hitesh Borkar, M Tomar, Vinay Gupta, Ram S Katiyar, J F Scott and Ashok Kumar</b> <i>Mater. Res. Express</i> 4 (2017) 086402 doi.org/10.1088/2053-1591/aa7b3d
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---

	Shalini Kumari, Dhiren K. Pradhan, Nora Ortega, Kallol Pradhan, Christopher DeVreugd, Gopalan Srinivasan, <b>Ashok Kumar</b> , Tula R. Paudel, Evgeny Y. Tsymbal, Alice M. Bumstead, J. F. Scott, and Ram S. Katiyar <i>PHYSICAL REVIEW B</i> 95, 214109 (2017) DOI: 10.1103/PhysRevB.95.214109
256.	Performance check of particle size standards within and after shelf-life using differential mobility analyzer <b>Bighnaraj Sarangi, Shankar G. Aggarwal, Prabhat K. Gupta</b> <i>Journal of Aerosol Science</i> 103 (2017) 24–37 doi.org/10.1016/j.jaerosci.2016.10.002
257.	Performance of magnetoelectric PZT/Ni multiferroic system for energy harvesting Application Reema Gupta, Monika Tomar, <b>Ashok Kumar</b> and Vinay Gupta <i>Smart Mater. Struct.</i> 26 (2017) 035002 (10pp) doi.org/10.1088/1361-665X/26/3/035002 0964-1726/
258.	Photo Physical Studies of PVP Arrested ZnS Quantum Dots Ashutosh Kumar Shahi, Bishnu Kumar Pandey, Bheeshma Pratap Singh, <b>Bipin Kumar Gupta, Sukhvir Singh</b> , and Ram Gopal <i>Electron. Mater. Lett.</i> , Vol. 13, No. 2 (2017), pp. 160-167 DOI: 10.1007/s13391-017-6132-7
259.	Photocatalytic degradation of polypropylene film using TiO <sub>2</sub> -based nanomaterials under solar irradiation <b>Rajni Verma, Sachchidanand Singh, M.K. Dalai, M. Saravanan, Ved V. Agrawal, Avanish Kumar Srivastava</b> <i>Materials and Design</i> 133 (2017) 10–18 doi.org/10.1016/j.matdes.2017.07.042
260.	Photocatalytic water-splitting solar-to-hydrogen energy conversion: Novel LiMoO <sub>3</sub> (IO <sub>3</sub> ) molybdenyl iodate based on WO <sub>3</sub> -type sheets Ali H. Reshak , <b>Sushil Auluck</b> <i>Journal of Catalysis</i> 351 (2017) 1–9 doi.org/10.1016/j.jcat.2017.03.020
261.	Photo-induced characteristic study of the smallest fullerene fragment, 1,6,7,10-tetramethylfluoranthene as an acceptor Chandra Kanth P., Jessica Patel, Mihirsinh Chauhan, <b>Md. Aatif, Abhishek Sharma</b> , Maitrayee U. Trivedi, Brijesh Tripathi, <b>Jai Prakash Tiwari, Govind Gupta</b> , Manoj Kumar and Manoj Kumar Pandey <i>New J. Chem.</i> , 2017, 41, 5836--5845 DOI: 10.1039/c7nj01229b
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263.	Plasmon induced ultrafast injection of hot electrons in Au nanoislands grown on a CdS film <b>Alka Sharma, Chhavi Sharma, Biplab Bhattacharyya, Kaweri Gambhir, Mahesh Kumar, Suresh Chand, Ranjana Mehrotraab and Sudhir Husale</b> <i>J. Mater. Chem. C</i> , 2017, 5, 618--626 DOI: 10.1039/c6tc04243k

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<b>264.</b>	Point defect induced giant enhancement of flux pinning in Co-doped FeSe0.5Te0.5 superconducting single crystals <b>Lina Sang, Pankaj Maheswari, Zhenwei Yu, Frank F. Yun, Yibing Zhang, Shixue Dou, Chuanbing Cai,, V. P. S. Awana, and Xiaolin Wang</b> <i>AIP Advances 7, 115016 (2017); doi: 10.1063/1.4995495</i>
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<b>272.</b>	Quantum effect in Nanoscale SOI FINFET Device Structure: A Simulation study <b>Sangeeta Mangesh, Dr. P. K. Chopra, Dr. K.K. Saini</b> <i>2017 Devices for Integrated Circuit (DevIC) DOI:10.1109/DEVIC.2017.8074062</i>

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<b>273.</b>	Quantifying phase separation in terms of magnetoresistive hysteresis loops in strongly phase-separated manganite thin films <b>Sandeep Singh1, Pawan Kumar Tyagi, H. K. Singh</b> <i>Appl. Phys. A (2017) 123:677 DOI 10.1007/s00339-017-1295-5</i>
<b>274.</b>	Rapid green synthesis of ZnO nanoparticles using a hydroelectric cell without an electrolyte <b>Jyoti Shah, Ravinder Kumar Kotnala</b> <i>Journal of Physics and Chemistry of Solids 108 (2017) 15–20</i> <i>doi.org/10.1016/j.jpcs.2017.04.007</i>
<b>275.</b>	Rapid synthesis strategy of CuO nanocubes for sensitive and selective detection of NO <sub>2</sub> Y.H. Navale , S.T. Navale , M. Galluzzi , F.J. Stadler , A.K. Debnath, N.S. Ramgir , S.C. Gadkari , S.K. Gupta , <b>D.K. Aswal</b> , V.B. Patil <i>Journal of Alloys and Compounds 708 (2017) 456e463</i> <i>doi.org/10.1016/j.jallcom.2017.03.079</i>
<b>276.</b>	Realization of efficient perovskite solar cells with MEH:PPV hole transport layer Dhirendra K. Chaudhary, <b>Pankaj Kumar</b> , Lokendra Kumar <i>J Mater Sci: Mater Electron (2017) 28:3451–3457 DOI 10.1007/s10854-016-5942-y</i>
<b>277.</b>	Realization of Four-Terminal-Pair Capacitors as Reference Standards of Impedance at High Frequency Using Impedance-Matrix Method <b>Satish Singh, Sachin Kumar, Babita, and Thomas John</b> <i>IEEE TRANSACTIONS ON INSTRUMENTATION AND MEASUREMENT, VOL. 66, NO. 8, AUGUST 2017</i>
<b>278.</b>	Reduced band gap & charge recombination rate in Se doped a-Bi <sub>2</sub> O <sub>3</sub> leads to enhanced photoelectrochemical and photocatalytic performance: Theoretical & experimental insight Rishabh Sharma , Manika Khanuja , <b>Shailesh Narayan Sharma</b> , Om Prakash Sinha <i>international journal of hydrogen energy 42 ( 2017 ) 20638 -20648</i> <i>doi.org/10.1016/j.ijhydene.2017.07.011</i>
<b>279.</b>	Relationships of surface ozone with its precursors, particulate matter and meteorology over Delhi <b>Ashima Sharma, T. K. Mandal, S. K. Sharma &amp; D. K. Shukla &amp; S. Singh,</b> <i>J Atmos Chem (2017) 74:451–474 DOI 10.1007/s10874-016-9351-7</i>
<b>280.</b>	Report on on-going CCL Key Comparison for the year 2014 Comparison of optical frequency and wavelength standards Michael Matus, Veselin Gavalyugov, Denita Tamakyarska, Nasser Alqahtani, Mohammad Alfohaid, <b>Girija Moona, Rina Sharma</b> , Asep Hapiddin, Ahmad Mohamad Boynawan, Monludee Ranusawud, Anusorn Tonmueanwai, Feng-Lei Hong, Jun Ishikawa and Lennart Robertsson <i>Metrologia, Volume 54, Technical Supplement</i> <i><a href="https://doi.org/10.1088/0026-1394/54/1A/04001">https://doi.org/10.1088/0026-1394/54/1A/04001</a></i>

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<b>281.</b>	Revealing the correlation between charge carrier recombination and extraction in an organic solar cell under varying illumination intensity <b>Abhishek Sharma, Mihirsinh Chauhan, Vishal Bharti, Manoj Kumar, Suresh Chand, Brijesh Tripathi and J. P. Tiwari</b> <i>Phys. Chem. Chem. Phys., 2017, 19, 26169–26178</i>
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<b>285.</b>	Role of spin-orbit interaction on the nonlinear optical response of CsPbCO <sub>3</sub> F using DFT E. Narsimha Rao, G. Vaiteeswaran, Ali H. Reshak and <b>S. Auluck</b> <i>Phys. Chem. Chem. Phys., 2017, 19, 31255–31266 DOI: 10.1039/c7cp05750d</i>
<b>286.</b>	Room temperature metal-insulator transition observed in Pb substituted lanthanum manganite <b>Akash Yadav, Jyoti Shah, Rahul Tripathi, R.K. Kotnala</b> <i>Ceramics International 43 (2017) 10508–10514 doi.org/10.1016/j.ceramint.2017.05.099</i>
<b>287.</b>	Ruthenium based metallocopolymer grafted reduced graphene oxide as a new hybrid solar light harvester in polymer solar cells R. Vinoth, Ganesh Babu, <b>Vishal Bharti, V. Gupta, M. Navaneethan, S. Venkataprasad Bhat, C. Muthamizhchelvan, Praveen C. Ramamurthy, Chhavi Sharma, Dinesh K. Aswal, Yasuhiro Hayakawa &amp; B. Neppolian</b> <i>Scientific Reports / 7:43133 / DOI: 10.1038/srep43133</i>
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<b>289.</b>	Seasonal characteristics of water-soluble inorganic ions and carbonaceous aerosols in total suspended particulate matter at a rural semi-arid site, Kadapa (India) G. Reshma Begam & C. Viswanatha Vachaspati & Y. Nazeer Ahammed & K. Raghavendra Kumar & R. R. Reddy & <b>S. K. Sharma &amp; Mohit Saxena &amp; T. K. Mandal</b> <i>Environ Sci Pollut Res (2017) 24:1719–1734 DOI 10.1007/s11356-016-7917-1</i>

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<b>291.</b>	Selective electrochemical sensing for arsenite using rGO/Fe <sub>3</sub> O <sub>4</sub> nanocomposites Pooja Devi, Chhavi Sharma, Praveen Kumar, <b>Mahesh Kumar</b> , Baban K.S.Bansod, Manoj K. Nayak, Madan L. Singla <i>Journal of Hazardous Materials</i> 322 (2017) 85–94 doi.org/10.1016/j.jhazmat.2016.02.066
<b>292.</b>	Simulating the Role of TCO Materials, their Surface Texturing and Band Gap of Amorphous Silicon Layers on the Efficiency of Amorphous Silicon Thin Film Solar Cells <b>Mansi Sharma, Deepika Chaudhary, Neeraj Dwivedi , S. Sudhakar ,Sushil Kumar,</b> <i>Silicon</i> (2017) 9:59–68 DOI 10.1007/s12633-015-9331-6
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<b>297.</b>	SODAR pattern classification and its dependence on meteorological parameters over a semiarid region of India Nishant Kumar, <b>Kirti Soni, Naveen Garg</b> , Ravinder Agarwal, D. Saha, <b>Mahavir Singh &amp; Gurbir Singh</b> <i>International Journal of Remote Sensing</i> , 38:11, 3466-3482, DOI: 10.1080/01431161.2017.1294774

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---

<b>298.</b>	Solution Processed Hybrid Organic-Inorganic CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Material and Optical Properties R. K. Singh, <b>A. Kumar</b> , N. Jain, J. Singh, <b>R. K. Singh</b> and R. Kumar <i>Materials Today: Proceedings</i> 4 (2017) 12661–12665 <a href="https://doi.org/10.1016/j.matpr.2017.10.079">https://doi.org/10.1016/j.matpr.2017.10.079</a>
<b>299.</b>	Spatio-temporal variation of air pollutants and the impact of anthropogenic effects on the photochemical buildup of ozone across Delhi-NCR S.K. Peshin, <b>Ashima Sharma</b> , <b>S.K. Sharma</b> , Manish Naja, <b>T.K. Mandal</b> <i>Sustainable Cities and Society</i> 35 (2017) 740–751 <a href="http://dx.doi.org/10.1016/j.scs.2017.09.024">http://dx.doi.org/10.1016/j.scs.2017.09.024</a>
<b>300.</b>	Spectroscopic studies of Pr <sub>3</sub> p doped lithium lead alumino borate glasses for visible reddish orange luminescent device applications Nisha Deopa , A.S. Rao, Dr., Sk. Mahamuda , Mohini Gupta , M. Jayasimhadri , <b>D. Haranath</b> , G. Vijaya Prakash <i>Journal of Alloys and Compounds</i> 708 (2017) 911e921 <a href="https://doi.org/10.1016/j.jallcom.2017.03.020">doi.org/10.1016/j.jallcom.2017.03.020</a>
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<b>302.</b>	Stability and reliability of P3HT:PC61BM inverted organic solar cells <b>Nikhil Chander</b> , Sujata Singh , S. Sundar Kumar Iyer <i>Solar Energy Materials &amp; Solar Cells</i> 161 (2017) 407–415
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<b>304.</b>	Stability, Scale-up, and Performance of Quantum Dot Solar Cells with Carbonate-Treated Titanium Oxide Films P. Naresh Kumar, Ankita Kolay, Melepurath Deepa, S. M. Shivaprasad, and <b>Avanish K. Srivastava</b> <i>ACS Appl. Mater. Interfaces</i> 2017, 9, 25278–25290 DOI: 10.1021/acsami.7b05726
<b>305.</b>	Strain mediated magnetoelectric coupling induced in (x) Bi <sub>0.5</sub> Na <sub>0.5</sub> TiO <sub>3</sub> -(1-x) MgFe <sub>2</sub> O <sub>4</sub> composites Manjusha, K.L. Yadava, Nidhi Adhlakha, Jyoti Shah, <b>R.K. Kotnala</b> <i>Physica B</i> 514 (2017) 41–50 doi.org/10.1016/j.physb.2017.03.027
<b>306.</b>	Strain-induced structural, magnetic and ferroelectric properties of heterostructure BST–NZFO nanocomposite thin film at room temperature <b>R.K. Kotnala</b> , G S Arya, J Yogiraj And N S Negi <i>Bull. Mater. Sci.</i> , Vol. 40, No. 4, August 2017, pp. 623–630

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<b>309.</b>	Structural and luminescent studies of erbium doped CaZrO <sub>3</sub> Green emitting nanophosphors <b>Evangeline Ballem ,Abdul Azeem, Prasada Rao Rayavarapu, Haranath Divi</b> <i>Luminescence</i> . 2017;32:1246–1251. DOI: 10.1002/bio.3318
<b>310.</b>	Structural and magnetic properties of nanocomposite ironcontaining SiCxNy film <b>R.V. Pushkarev , N.I. Fainer , K.K. Maurya</b> <i>Superlattices and Microstructures</i> 102 (2017) 119e126 doi.org/10.1016/j.spmi.2016.12.014
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<b>314.</b>	Structural, magnetic, magneto-transport properties, and electronic structure study of charge-ordered (La <sub>0.4</sub> Pr <sub>0.6</sub> ) <sub>0.65</sub> Ca <sub>0.35</sub> MnO <sub>3</sub> <b>G.D. Dwivedi , Satyam Kumar , Amish G. Joshi , Shiv Kumar , A.K. Ghosh , H. Chou , H.D. Yang , Sandip Chatterjee</b> <i>Journal of Alloys and Compounds</i> 699 (2017) 31e37 doi.org/10.1016/j.jallcom.2016.12.282

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<b>315.</b>	Structural-conformational aspects of tRNA complexation with chloroethyl nitrosourea derivatives: A molecular modeling and spectroscopic investigation <b>Shweta Agarwal , Gunjan Tyagi , Deepti Chadha , Ranjana Mehrotra</b> <i>Journal of Photochemistry &amp; Photobiology, B: Biology</i> 166 (2017) 1–11 <i>doi.org/10.1016/j.jphotobiol.2016.09.045</i>
<b>316.</b>	Structure, morphology and optical characterization of Dy <sup>3+</sup> -doped BaYF <sub>5</sub> nanocrystals for warm white light emitting devices P. Haritha , I.R. Martín , C.S. Dwaraka Viswanath , N. Vijaya , K. Venkata Krishnaiah ,C.K. Jayasankar , <b>D. Haranath</b> , V. Lavín , V. Venkatramu <i>Optical Materials</i> 70 (2017) 16e24 <i>doi.org/10.1016/j.optmat.2017.05.002</i>
<b>317.</b>	Studies of ferroelectric properties and leakage current behaviour of microwave sintered ferroelectric Na <sub>0.5</sub> Bi <sub>0.5</sub> TiO <sub>3</sub> ceramic Hari Sankar Mohanty, Tapabrata Dam, <b>Hitesh Borkar, Ashok Kumar</b> , K. K. Mishra, Shrabanee Sen, Banarji Behera, Balaram Sahoo & Dillip K. Pradhan <i>Ferroelectrics</i> 2017, VOL. 517, 25–33
<b>318.</b>	Studies on dielectric, optical, magnetic, magnetic domain structure, and resistance switching characteristics of highly c-axis oriented NZFO thin films Dhiren K. Pradhan, Shalini Kumari, Linglong Li, Rama K. Vasudevan, Proloy T. Das, Venkata S. Puli, Dillip K. Pradhan, <b>Ashok Kumar</b> , Pankaj Misra, A. K. Pradhan, Sergei V. Kalinin and Ram S. Katiyar <i>Journal Of Applied Physics</i> 122, 033902 (2017) <i>doi.org/10.1063/1.4994312</i>
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<b>330.</b>	Study on the effect of carbon nanotube on the properties of electrically conductive epoxy/polyaniline adhesives Vinay Khandelwal, Sushanta K. Sahoo, <b>Ashok Kumar</b> , Gaurav Manik <i>J Mater Sci: Mater Electron</i> (2017) 28:14240–14251 DOI 10.1007/s10854-017-7282-y
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<b>332.</b>	Superconducting gap structure in the electron doped BiS <sub>2</sub> -based superconductor A Bhattacharyya, D T Adroja, A D Hillier, <b>R Jha, V P S Awana</b> and A M Strydom <i>J. Phys.: Condens. Matter</i> 29 (2017) 265602 (6pp) https://doi.org/10.1088/1361-648X/aa7189

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<b>333.</b>	Surface Engineering of Colloidal Quantum Dots for Organic and Biocompatible Solution-Processable Materials <b>Shailesh Narain Sharma</b> <i>Springer Proceedings in Physics 178, DOI 10.1007/978-3-319-29096-6_7</i>
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<b>335.</b>	Surfactant-assisted synthesis of polythiophene/ Ni <sub>0.5</sub> Zn <sub>0.5</sub> Fe <sub>2x</sub> CexO <sub>4</sub> ferrite composites: study of structural, dielectric and magnetic properties for EMI-shielding applications M. Abdullah Dar, Kowsar Majid, Mohd. Hanief Najar, <b>R. K. Kotnala, Jyoti Shah, S. K. Dhawan and M. Farukhb</b> <i>Phys. Chem. Chem. Phys., 2017, 19, 10629—10643</i>
<b>336.</b>	Synergistic effect of CuS@ZnS nanostructures on photocatalytic degradation of organic pollutant under visible light irradiation S. Harish, J. Archana, M. Navaneethan, S. Ponnusamy, Ajay Singh, <b>Vinay Gupta, D. K. Aswal</b> , H. Ikeda and Y. Hayakawa <i>RSC Adv., 2017, 7, 34366–34375 DOI: 10.1039/c7ra04250g</i>
<b>337.</b>	Synthesis & Tailoring the Thermal Conductivity of Sr Doped Bi <sub>2</sub> Se <sub>3</sub> Thermoelectric Material Anil K. Bohra, Ranu Bhatt, Shovit Bhattacharya, Ranita Basu, Sajid Ahmad, Ajay Singh, <b>D. K. Aswal</b> , and K.P. Muthe <i>AIP Conf. Proc. 1832, 110019-1–110019-3; doi: 10.1063/1.4980643</i>
<b>338.</b>	Synthesis and Characterization of Benzodithiophene–Chalcogenophene Based Copolymers: A Comparative Study of Optoelectronic Properties and Photovoltaic Applications <b>Shahjad, Ranoo Bhargav, Dinesh Bhardwaj, Anamika Mishra, Asit Patra</b> <i>Wiley-Vch Verlag GmbH &amp; Co. KGaA, Weinheim DOI: 10.1002/macp.201700038</i>
<b>339.</b>	Synthesis and characterization of pectin-6-aminohexanoic acid-magnetite nanoparticles for drug delivery Varun Arora , Ankur Sood , <b>Jyoti Shah , R.K. Kotnala</b> , Tapan K. Jaina, <i>Materials Science and Engineering C 80 (2017) 243–251 doi.org/10.1016/j.msec.2017.05.097</i>
<b>340.</b>	Synthesis and charge transport properties of new methanofullerenes <b>Samya Naqvi, Neha Gupta, Neelam Kumari, Jyoti Garg and Rachana Kumar</b> <i>New J. Chem., 2017, 41, 1933--1939 DOI: 10.1039/c6nj03445d</i>
<b>341.</b>	Synthesis and comparative charge transfer studies in porphyrin–fullerene dyads: mode of attachment effect <b>Neha Gupta, Chhavi Sharma, Mahesh Kumar and Rachana Kumar</b> <i>New J. Chem., 2017, 41, 13276--13286 DOI: 10.1039/c7nj01613a</i>

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<p><b>342.</b> Synthesis of Bi<sub>3</sub>þ substituted Ni-Cu ferrites and study of structural, electrical and magnetic properties Pradeep Chavan , L.R. Naik, P.B. Belavi , G.N. Chavan , <b>R.K. Kotnala</b> Journal of Alloys and Compounds 694 (2017) 607e612. <a href="https://doi.org/10.1016/j.jallcom.2016.10.034">doi.org/10.1016/j.jallcom.2016.10.034</a></p>
<p><b>343.</b> Synthesis of N and F co-doped TiO<sub>2</sub> nanophotocatalysts for degradation of malathion in water Bhanu Pratap Dhamaniya, Ashavani Kumar, <b>A. K. Srivastava, J. S. Tawale</b>, <i>Res Chem Intermed</i> (2017) 43:387–399 DOI 10.1007/s11164-016-2629-1</p>
<p><b>344.</b> Synthesis of ZnO/SrO nanocomposites for enhanced photocatalytic activity under visible light irradiation S. Harisha, M. Sabarinathan, J. Archana, M. Navaneethan, K.D. Nisha, S. Ponnusamy, Vinay Gupta, C. Muthamizhchelvan, <b>D.K. Aswal</b>, H. Ikeda, Y. Hayakawa, <i>Applied Surface Science</i> 418 (2017) 147–155 .<a href="https://doi.org/10.1016/j.apsusc.2017.01.164">doi.org/10.1016/j.apsusc.2017.01.164</a></p>
<p><b>345.</b> Synthesis, characterization and thermally induced structural transformation of Au-C70 nanocomposite thin films Rahul Singhal , Ritu Vishnoi, Pooja Sharma , G.D. Sharma , <b>S. Chand</b> , D. Kanjilal, J.C. Pivin <i>Vacuum</i> 142 (2017) 146e153 <a href="https://doi.org/10.1016/j.vacuum.2017.05.017">doi.org/10.1016/j.vacuum.2017.05.017</a></p>
<p><b>346.</b> Systematic Uncertainty Evaluation of the Cesium Fountain Primary Frequency Standard at NPL India <b>A. Acharya , V. Bharath, P. Arora, S. Yadav, A. Agarwal and A. S. Gupta</b>, <i>MAPAN-Journal of Metrology Society of India</i> (March 2017) 32(1):67–76 DOI 10.1007/s12647-016-0190-4</p>
<p><b>347.</b> Tapping the potential of trioctylphosphine (TOP) in the realization of highly luminescent blue-emitting colloidal indium phosphide (InP) quantum dots <b>Akanksha Singh, Parul Chawla, Shefali Jain, Shailesh Narain Sharma</b> <i>Physica E</i> 90 (2017) 175–182 <a href="https://doi.org/10.1016/j.physe.2017.03.029">doi.org/10.1016/j.physe.2017.03.029</a></p>
<p><b>348.</b> Tellurium-free thermoelectrics: Improved thermoelectric performance of n-type Bi<sub>2</sub>Se<sub>3</sub> having multiscale hierarchical architecture Anil K. Bohra , Ranu Bhatt , Ajay Singh , Ranita Basu , Shovit Bhattacharya K.N. Meshram , Sajid Ahmad , A.K. Debnath , A.K. Chauhan , Pramod Bhatt , Kunjal Shah , Ketan Bhotkar , Saloni Sharma , <b>D.K. Aswal</b> , K.P. Muthe , S.C. Gadkari <i>Energy Conversion and Management</i> 145 (2017) 415–424 <a href="https://doi.org/10.1016/j.enconman.2017.04.083">doi.org/10.1016/j.enconman.2017.04.083</a></p>
<p><b>349.</b> Temperature dependent electronic conduction through graphene oxide thin film based two terminal devices Pooja Saini, Harsh Jain, Ram P. Tandon, <b>Surinder P. Singh</b> &amp; Ajit K. Mahapatro <i>Integrated Ferroelectrics</i> 2017, VOL. 184, 210-216</p>

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---

<b>350.</b>	The 2D–3D crossover and anisotropy of upper critical fields in Nb and NbN superconducting thin films <b>Lalit M. Joshi , Apoorva Verma , P.K. Rout a, Mandeep Kaur , Anurag Gupta , R.C. Budhani</b> <i>Physica C: Superconductivity and its applications</i> 542 (2017) 12–17 <i>doi.org/10.1016/j.physc.2017.08.008</i>
<b>351.</b>	The effect of carbon nanotubes (CNT) on thermoelectric properties of lead telluride (PbTe) nanocubes <b>B. Khasimsaheb , Niraj Kumar Singh , Sivaiah Bathula , Bhasker Gahtori , D. Haranath ,S. Neeleshwar ,</b> <i>Current Applied Physics</i> 17 (2017) 306e313 <i>doi.org/10.1016/j.cap.2016.05.026</i>
<b>352.</b>	The influence of oxygen vacancies on the linear and nonlinear optical properties of Pb <sub>7</sub> O(OH) <sub>3</sub> (CO <sub>3</sub> ) <sub>3</sub> (BO <sub>3</sub> ) <b>A. H. Reshak and S. Auluck</b> <i>RSC Adv.</i> , 2017, 7, 14752–14760 DOI: 10.1039/c7ra00012j
<b>353.</b>	The SI redefinition to come into force from 20 May 2019 <b>D. K. Aswal</b> <i>Current Science</i> , VOL. 113, NO. 11, 2066 10 DECEMBER 2017
<b>354.</b>	Thermal conductivity of thermoelectric material β–Cu <sub>2</sub> Se: Implications on phonon thermal transport Sadanandam Namsani, <b>Sushil Auluck</b> , and Jayant K. Singh <i>Appl. Phys. Lett.</i> 111, 163903 (2017) <i>doi.org/10.1063/1.4999405</i>
<b>355.</b>	Thermal Heating Induced Fractionation Effect on d15N Measurements (Using Continuous Flow Isotope Ratio Mass-Spectrometry) for Samples Containing Lower N Contents <b>R. Agnihotri, R. Sawlani, C. Sharma and M. V. S. N. Prasad</b> <i>APAN-Journal of Metrology Society of India</i> (March 2017) 32(1):33–38 DOI 10.1007/s12647-016-0187-z
<b>356.</b>	Thermal properties of Pr <sub>2</sub> /3Sr <sub>1</sub> /3MnO <sub>3</sub> manganites:PdO composites Ashok Rao, S.O. Manjunatha, <b>Ramesh Chandra Bhatt, V.P.S. Awana, C.F. Lin, Y.K. Kuo,P. Poornesh</b> <i>Solid State Communications</i> 265 (2017) 37–40 <i>doi.org/10.1016/j.ssc.2017.08.004</i>
<b>357.</b>	Thermally evaporated copper oxide films: A view of annealing effect on physical and gas sensing properties Y.H. Navale, S.T. Navale, F.J. Stadler, N.S. Ramgir, A.K. Debnath, S.C. Gadkari, S.K. Gupta, <b>D.K. Aswal</b> , V.B. Patil <i>Ceramics International</i> 43 (2017) 7057–7064 <i>doi.org/10.1016/j.ceramint.2017.02.135</i>
<b>358.</b>	TiO <sub>2</sub> -Based Nano Y- and T-tubes and Peapods <b>G.Sreeram Reddy, B.V.Reddi, Nahar Singh , K.N.Sood</b> <i>Materials Today: Proceedings</i> 4 (2017) 7831–7836 <i>doi.org/10.1016/j.matpr.2017.07.118</i>

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<b>359.</b>	“Traffic intervention” policy fails to mitigate air pollution in megacity Delhi Sourangsu Chowdhury, Sagnik Deya, Sachchida Nand Tripathib, Gufran Beig, <b>Amit Kumar Mishra</b> , Sumit Sharma <i>Environmental Science and Policy</i> 74 (2017) 8–13 doi.org/10.1016/j.envsci.2017.04.018
<b>360.</b>	Triethylammonium acetate ionic liquid assisted one-pot synthesis of dihydropyrimidinones and evaluation of their antioxidant and antibacterial activities Pankaj Attri , Rohit Bhatia , <b>Jitender Gaur</b> , Bharti Arora , <b>Anjali Gupta</b> ,Naresh Kumar , Eun Ha Choi <i>Arabian Journal of Chemistry</i> (2017) 10, 206–214 doi.org/10.1016/j.arabjc.2014.05.007
<b>361.</b>	Tunable luminescence from two dimensional BCNO nanophosphor for high-contrast cellular imaging <b>Bipin Kumar Gupta</b> , Pawan Kumar, Garima Kedawat, <b>Kanika</b> , Sajna AntonyVithayathil, Amit Kumar <b>Gangwar</b> , <b>Satbir Singh</b> , <b>Pradeep Kumar Kashyap</b> , Rimli Lahon, V. N. Singh, Abhay D. Deshmukh, Tharangattu N. Narayanan, <b>Nidhi Singh</b> , Sarika Gupta and Benny Abraham Kaipparettu <i>RSC Adv.</i> , 2017, 7, 41486–41494 DOI: 10.1039/c7ra08306h
<b>362.</b>	Turning Hazardous Diesel Soot into High Performance Carbon/MnO <sub>2</sub> Supercapacitive Energy Storage Material Vikrant Sahu, <b>Monu Mishra</b> , <b>Govind Gupta</b> , Gurmeet Singh, and Raj Kishore Sharma, <i>ACS Sustainable Chem. Eng.</i> 2017, 5, 450–459 DOI: 10.1021/acssuschemeng.6b01788
<b>363.</b>	Two haloid borate crystals with large nonlinear optical response A. H. Reshak and <b>S. Auluck</b> <i>Phys.Chem.Chem.Phys.</i> ,2017, 19, 18416 DOI: 10.1039/c7cp02364b
<b>364.</b>	Ultrafast photoresponse and enhanced photoresponsivity of Indium Nitride based broad band photodetector <b>Shibin Krishna</b> , Alka Sharma, Neha Aggarwal, Sudhir Husale, <b>Govind Gupta</b> Solar Energy Materials and Solar Cells 172 (2017) 376–383 doi.org/10.1016/j.solmat.2017.08.017
<b>365.</b>	Ultrasensitive and Selective Sensing of Selenium Using Nitrogen-Rich Ligand Interfaced Carbon Quantum Dots Pooja Devi, Anupma Thakur, Shweta Chopra, Navneet Kaur, Praveen Kumar, Narinder Singh, <b>Mahesh Kumar</b> , Sonnada Math Shivaprasad, and Manoj K. Nayak <i>ACS Appl. Mater. Interfaces</i> 2017, 9, 13448–13456 DOI: 10.1021/acsami.7b00991
<b>366.</b>	Unclonable Security Codes Designed from Multicolor Luminescent Lanthanide-Doped Y <sub>2</sub> O <sub>3</sub> Nanorods for Anticounterfeiting <b>Pawan Kumar</b> , <b>Kanika Nagpal</b> , and <b>Bipin Kumar Gupta</b> <i>ACS Appl. Mater. Interfaces</i> 2017, 9, 14301–14308 DOI: 10.1021/acsami.7b03353
<b>367.</b>	Understanding lattice defects to influence ferromagnetic order of ZnO nanoparticles by Ni, Cu, Ce ions Kuldeep Chand Vermaa, <b>R.K. Kotnal</b> <i>Journal of Solid State Chemistry</i> 246 (2017) 150–159 doi.org/10.1016/j.jssc.2016.11.018

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<b>368.</b>	Understanding thermomagnetic hysteresis in La <sub>1-x-y</sub> Pr <sub>y</sub> Ca <sub>x</sub> MnO <sub>3</sub> thin films <b>Akash Yadav, Sandeep Singh, Amit Vashist, Gyanendra Sharma, P K Siwach and H K Singh</b> <i>Mater. Res. Express</i> 4 (2017) 066102 doi.org/10.1088/2053-1591/aa7019
<b>369.</b>	Unipolar resistive switching behavior in sol-gel synthesized FeSrTiO <sub>3</sub> thin films <b>Atul Thakre, Jyoti Kaswan, A. K. Shukla and Ashok Kumar</b> <i>RSC Adv.</i> , 2017, 7, 54111–54116 DOI: 10.1039/c7ra09836g
<b>370.</b>	Unipolar resistive switching in cobalt titanate thin films <b>Atul Thakre, A. K. Shukla, R. S. Katiyar and Ashok Kumar</b> <i>EPL</i> , 117 (2017) 37003 doi: 10.1209/0295-5075/117/37003
<b>371.</b>	Unusual magneto-thermal properties in Sr <sub>4</sub> Ru <sub>3</sub> O <sub>10</sub> Pramod Kumar, Naresh Kumar, and <b>Rachana Kumar</b> <i>Mater. Res. Express</i> 4 (2017) 026104 doi:10.1088/2053-1591/aa5a25
<b>372.</b>	Unusual Mixed Valence of Eu in Two Materials-EuSr <sub>2</sub> Bi <sub>2</sub> S <sub>4</sub> F <sub>4</sub> and Eu <sub>2</sub> SrBi <sub>2</sub> S <sub>4</sub> F <sub>4</sub> : Mössbauer and Xray Photoemission Spectroscopy Investigations Zeba Haque, Gohil Singh Thakur, Rangasamy Parthasarathy, Birgit Gerke, Theresa Block, Lukas Heletta, Rainer Pöttgen, <b>Amish G. Joshi</b> , Ganesan Kalai Selvan, Sonachalam Arumugam, Laxmi Chand Gupta and Ashok Kumar Ganguli <i>American Chemical Society Inorg. Chem.</i> 2017, 56, 3182–3189 DOI: 10.1021/acs.inorgchem.6b01926
<b>373.</b>	Unusual non saturating Giant Magneto-resistance in single crystalline Bi <sub>2</sub> Te <sub>3</sub> topological insulator <b>Rabia Sultana, P. Neha, R. Goyal, S. Patnaik, V.P.S. Awana</b> <i>Journal of Magnetism and Magnetic Materials</i> 428 (2017) 213–218 doi.org/10.1016/j.jmmm.2016.12.011
<b>374.</b>	Unusual Photocatalytic Activity of Cr-Doped TiO <sub>2</sub> Nanoparticles <b>Tanu Mittal, Sangeeta Tiwari and Shailesh Narain Sharma</b> <i>Springer Proceedings in Physics</i> 178, DOI 10.1007/978-3-319-29096-6_31
<b>375.</b>	Upshot of natural graphite inclusion on the performance of porous conducting carbon fiber paper in a polymer electrolyte membrane fuel cell <b>Shweta Kaushal, Praveen Negi, A K Sahu and S R Dhakate</b> <i>Mater. Res. Express</i> 4 (2017) 095603 doi.org/10.1088/2053-1591/aa8517
<b>376.</b>	Vacuum thermal deposition of crystalline, uniform and stoichiometric CdS thin films in ambient H <sub>2</sub> S atmosphere Beer Pal Singh, Rakesh Kumar, Ashwani Kumar, Mahesh Kumar & <b>Amish G Joshi</b> <i>Indian Journal of Pure &amp; Applied Physics</i> Vol. 55, July 2017, pp. 463-470

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<b>377.</b>	Valence Band Electronic Structure of Ho-doped La <sub>0.67</sub> Ca <sub>0.33</sub> MnO <sub>3</sub> Using Ultra-Violet Photoemission Spectroscopy S. K. Rout, R. N. Mukharjee, D. K. Mishra, B. K. Roul, B. R. Sekhar and <b>M. K. Dalai</b> <i>Aip Conf. Proc.</i> 1832, 090026-1–090026-3; doi: 10.1063/1.4980579
<b>378.</b>	Valence band electronic structure of Nb <sub>2</sub> Pd <sub>1.2</sub> Se <sub>5</sub> and Nb <sub>2</sub> Pd <sub>0.95</sub> S <sub>5</sub> superconductors H. Lohani, P. Mishra, <b>R. Goyal, V.P.S. Awana, B.R. Sekhar</b> <i>Physica B</i> 509 (2017) 31–35 doi.org/10.1016/j.physb.2016.12.025
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<b>380.</b>	Volume ratio and pressure drop on hydraulic dynamic pressure calibration system <b>Afaqul Zafer, Sanjay Yadav, Arif Sanjid, Lalit Kumar and Raman Kumar Sharma</b> <i>Journal of Mechanical Science and Technology</i> 31 (8) (2017) 3769~3775 DOI 10.1007/s12206-017-0720-1
<b>381.</b>	Water soluble inorganic species of PM10 and PM2.5 at an urban site of Delhi, India: Seasonal variability and sources <b>Moht Saxena , A. Sharma , A. Sen, Priyanka Saxena , Saraswati , T.K.Mandal , S.K. Sharma , C. Sharma</b> <i>Atmospheric Research</i> 184 (2017) 112–125 .doi.org/10.1016/j.atmosres.2016.10.005
<b>382.</b>	Wet chemical etching induced stress relaxed nanostructures on polar & non-polar epitaxial GaN films <b>Monu Mishra, Abhiram Gundimeda, Shibin Krishna, Neha Aggarwal, Bhasker Gahtori, Nita Dilawar, Ved Varun Aggarwal, Manju Singh, Rajib Rakshit and Govind Gupta</b> <i>Chem.Chem.Phys.</i> 2017, 19, 8787 DOI: 10.1039/c7cp00380c
<b>383.</b>	Wide range humidity sensing of LiCl incorporated in mesoporous silica circular discs Suhasini Kunchakara, <b>Jyoti Shah</b> , Vaishali Singh & <b>R. K. Kotnala</b> <i>Phase Transitions</i> , 2017 VOL. 90, NO. 12, 1241–1255
<b>384.</b>	Xray Reflectivity Study of the Interaction of an Imidazolium-Based Ionic Liquid with a Soft Supported Lipid Membrane G. Bhattacharya, R. P. Giri, H. Saxena, <b>V. V. Agrawal</b> , A. Gupta, M. K. Mukhopadhyay, and S. K. Ghosh <i>Langmuir</i> 2017, 33, 1295–1304 DOI: 10.1021/acs.langmuir.6b03192

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<b>385.</b>	Zinc oxide hierarchical nanostructures as potential NO <sub>2</sub> sensors Y.H. Navale, S.T. Navale, N.S. Ramgir, F.J. Stadler, S.K. Gupta, <b>D.K. Aswal</b> , V.B. Patila, <i>Sensors and Actuators B</i> 251 (2017) 551–563 doi.org/10.1016/j.snb.2017.05.085
<b>386.</b>	Zinc peroxide nanomaterial as an adsorbent for removal of Congo red dye from waste water <b>Sneha Chawla , Himani Uppal , Mohit Yadav , Nupur Bahadur , Nahar Singh</b> EcotoxicologyandEnvironmentalSafety135(2017)68–74 doi.org/10.1016/j.ecoenv.2016.09.017