

PAPERS PUBLISHED BY NPL RESEARCHERS IN SCI* JOURNALS IN 2009

S.No	Title
1.	AC Power & Energy Standard - NPLI Measurement, Calibration & Testing MK Mittal, RK Kotnala, JC Biswas, Yadav A.S. <i>MAPAN Volume: 24 Issue: 1 Pages: 21-28 Published: MAR 2009</i>
2.	Alumina Supported Co–K–Mo Based Catalytic Material for Diesel Soot Oxidation M. Dhakad, Amish G. Joshi , S. Rayalu, P. Tanwar, J. K. Bassin, R. Kumar, S. Lokhande, J. Subrt, T. Mitsuhashi, Nitin Labhsetwar <i>Top Catal (2009) 52:2070–2075</i>
3.	AM30 porthole die extrusions—A comparison with circular seamless extruded tubes Rajiv Sikand , Arun M. Kumar, Anil K. Sachdev, Alan A. Luo, Vipin Jain, Anil K. Gupta <i>Journal of Materials Processing Technology 209 (2009) 6010–6020</i>
4.	Ambient air quality during wheat and rice crop stubble burning episodes in Patiala Susheel K. Mittal , Nirankar Singh, Ravinder Agarwal, Amit Awasthi, Prabhat K. Gupta <i>Atmospheric Environment 43 (2009) 238–244</i>
5.	Amorphous and nanocrystalline silicon made by varying deposition pressure in PECVD process Jhuma Gope , Sushil Kumar, A. Parashar , P.N. Dixit, C.M.S. Rauthan, O.S. Panwar , D.N. Patel, S.C. Agarwal <i>Journal of Non-Crystalline Solids 355 (2009) 2228–2232</i>
6.	Analysis of dielectric constants to determine sp ³ /sp ² ratio and effect of substrate bias on spectroscopic ellipsometric studies of tetrahedral amorphous carbon films grown using an S bend filtered cathodic vacuum arc process O S Panwar, Mohd Alim Khan, A Basu , Satyendra Kumar & Sushil Kumar <i>Indian Journal of Pure & Applied Physics Vol. 47, February 2009, pp. 141-148</i>
7.	Angle-dependent XPS analysis of silicon nitride film deposited on screen-printed crystalline silicon solar cell Priyanka Singh, S.M. Shivaprasad, M. Lal, M. Husain <i>Solar Energy Materials & Solar Cells 93 (2009) 19–24</i>
8.	Anomalous thermoelectric power of overdoped Bi ₂ Sr ₂ CaCu ₂ O ₈ superconductor V. P. S. Awana, Jagdish Kumar Bains , G. S. Okram, Ajay Soni, P. K. Ahluwalia, and H. Kishan <i>Journal of Applied Physics 106, 096102 (2009)</i>

9.	<p>Anti-resonant reflecting photonic crystal waveguide (ARRPCW): modeling and design Shruti, R. K. Sinha, R. Bhattacharyya</p> <p><i>Opt Quant Electron (2009) 41:181–187</i></p>
10.	<p>Atmospheric phenomena deduced from radiosonde and GPS occultation measurements for various application related studies C J Johny, S K Sarkar, and D Punyasesudu</p> <p><i>J. Earth Syst. Sci. 118, No. 1, February 2009, pp. 49–59</i></p>
11.	<p>Attachment Of Streptavidin-Biotin On 3- Aminopropyltriethoxysilane (APTES) Modified Porous Silicon Surfaces Shalini Singh, Norman Lapin, P.K. Singh, Mukhtar A. Khan and Yves J. Chabal</p> <p><i>Transport and Optical Properties of Nanomaterials—ICTOPON – 2009 p.421-426 p.443-449</i></p>
12.	<p><u>Bottomside profile shape parameters during low solar activity and comparisons with IRI-2007 model</u> N.K. Sethi, R.S. Dabas, Purshottam Bhawre, S.K. Sarkar</p> <p><i>Journal of Atmospheric and Solar-Terrestrial Physics 71 (2009) 1942</i></p>
13.	<p><u>Broad spectral sensitivity and improved efficiency in CuPc/Sub-Pc organic photovoltaic devices</u> Hemant Kumar, Pankaj Kumar, Ramil Bhardwaj, G D Sharma, Suresh Chand, S C Jain and Vikram Kumar</p> <p><i>J. Phys. D: Appl. Phys. 42(2009) 015103 (6pp)</i></p>
14.	<p><u>Broad temperature range low field magnetoresistance in La_{0.7} Ca_{0.3} MnO₃ :nano-ZnO composites</u> P.K. Siwach, Pankaj Srivastava, Jai Singh, H.K. Singh, O.N. Srivastava</p> <p><i>Journal of Alloys and Compounds 481 (2009) 17–21</i></p>
15.	<p><u>Broad yellow orange emission from SrAl₂O₄:Pr³⁺ phosphor with blue excitation for application to white LEDs</u> Santa Chawla, Nitin Kumar, Harish Chander</p> <p><i>Journal of Luminescence 129 (2009) 114–118</i></p>
16.	<p><u>Calibration & Measurement Facilities for AC High Current & High Voltage Ratio Standards at NPL</u> S.R. Gupta</p> <p><i>MAPAN Vol. 24, pp. 29-39</i></p>
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22.	<p><u>Characteristics of Rain Integral Parameters during Tropical Convective, Transition, and Stratiform Rain at Gadanki and Its Application in Rain</u> Sanjay Sharma, Mahen Konwar, Diganta Kumar Sarma, M. C. R. Kalapureddy, A. R. Jain</p> <p><i>Journal of Applied Meteorology and Climatology</i> 48 (6) June 2009 pp. 1245-1266</p>
23.	<p><u>Characterization of Boron- and Phosphorous-Incorporated Tetrahedral Amorphous Carbon Films Deposited by the Filtered Cathodic Vacuum Arc Process</u> Omir Singh Panwar, Mohd. Alim Khan, Mahesh Kumar, Sonnada Math Shivaprasad, Bukinakere Subbakrihniah Satyanarayana, Prakash Narain Dixit, and Raghunath Bhattacharyya</p> <p><i>Japanese Journal of Applied Physics</i> 48 (2009) 065501</p>
24.	<p><u>Characterization of the E1 center in quartz: Role of aluminum hole centers and oxygen vacancies</u> Teruo Usami, Shin Toyoda, Harish Bahadur, A.K. Srivastava, H. Nishido</p> <p><i>Physica B</i> 404 (2009) 3819–3823</p>
25.	<p><u>Characterization of ZnSe nanoparticles synthesized by microwave heating process</u> Mohd. Shakir, S.K. Kushwaha, K.K. Maurya, G. Bhagavannarayana, M.A. Wahab</p> <p><i>Solid State Communications</i> 149 (2009) 2047–2049</p>

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27.	<p><u>Charge transport and ammonia sensing response in poly (aniline-co-1-amino-2-naphthol-4-sulphonic acid)</u> Vineet Bansal, M C Bansal & S K Dhawan</p> <p><i>Indian Journal of Engineering & Materials Sciences</i> Vol. 16, October 2009, pp. 355-363</p>
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30.	<p><u>Cholesterol biosensor based on electrochemically prepared polyaniline conducting polymer film in presence of a nonionic surfactant</u> Raju Khan & Pratima R. Solanki & Ajeet Kaushik & S. P. Singh & Sharif Ahmad & B. D. Malhotra</p> <p><i>J Polym Res</i> (2009) 16:363–373</p>
31.	<p><u>Comparative study of structural and magnetic properties of nano-crystalline Li_{0.5}Fe_{2.5}O₄ prepared by various methods</u> Vivek Verma, Vibhav Pandey, Sukhveer Singh, R.P. Aloysius, S. Annapoorni, R.K. Kotanala</p> <p><i>Physica B</i> 404 (2009) 2309–2314</p>
32.	<p><u>Comparative study of transport properties of compressively strained epitaxial and polycrystalline La_{0.88}Sr_{0.12}MnO₃ thin films</u> Ravikant Prasad, Mangala Prasad Singh, Wilfred Prellier, Praveen Kumar Siwach, Rajiv Rawat, Amarjeet Kaur, and Hari Krishana Singh</p> <p><i>Phys. Status Solidi B</i> 246, No. 7, 1662 – 1673 (2009)</p>
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