

## **(04) Carbon and Graphene**

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## (4) Carbon and Graphene

### DETAILED PROGRAMME

**Monday, 16-12-2013**

**Session I : 10.15 – 11.15**

10.15 - 10.45 Invited Talk (1)	<u>A.K. Sood</u>	<b>ABS - E-mail - ICA</b> Photophysics of Graphene using Time-Resolved Terahertz Spectroscopy
10.45 - 11.15 Invited Talk (2)	<u>P.I. Cohen</u> , F. Wang, G. Liu, S. Rothwell, L.C. Feldman and E.H. Conrad	<b>ABS - Email - ICA</b> Introduction of a bandgap into graphene grown on SiC with adsorbed nitrogen

**Session II : 11.45 – 13.15**

11.45 - 12.15 Invited Talk (3)	<u>G.U. Kulkarni</u>	<b>ABS - Email - ICA</b> Pencil-on-paper : electronic devices
12.15 - 12.30 Oral (1a)	<u>Sharmila Shirodkar</u>	<b>ABS - Email - ICA</b> Stone-wales defects in graphene : Gap or no-gap?
12.30 - 12.45 Oral (1)	<u>Maneesh Chandran</u> , Dinesh Kumar, Ravi Dumpala, C.R. Kumaran, B. Ramamoorthy, S.S. Bhattacharya and M.S. Ramachandra Rao	<b>ABS - 455 - ICA</b> Influence of Substrate Geometry on Crystallite Size of Diamond Films
12.45 - 13.00 Oral (2)	<u>Arnab Mukherjee</u> , Kaushik Bhowmik, and Goutam De	<b>ABS - 470 - ICA</b> Direct Fridel-Craft Acylation of Graphite and Graphene for Carboxylic Acid Terminated Exfoliated Graphene Sheets

**Session III : 16.00 – 18.00**

16.00 - 16.30 Invited Talk (5)	<u>Mandar M. Deshmukh</u>	<b>ABS - 1610 - ICA</b> Tunable graphene superlattice
16.30 - 16.45 Oral (3)	<u>S. Mahaboob Jilani</u> , K. Sarkar and P. Banerji	<b>ABS - 752 - ICA</b> Field effect transistors with graphite oxide as dielectric and its surface reduced by silver nanoparticles as channel layer
16.45 - 17.00 Oral (4)	<u>Dharmendra Pratap Singh</u> , Swadesh Kumar Gupta, and Rajiv Manohar	<b>ABS - 1101 - ICA</b> Skeleton of Graphene with Liquid Crystals for Devices Applications
17.00 - 17.15 Oral (5)	<u>G. Govindaraj</u>	<b>ABS - 1248 - ICA</b> Electron-Hole Dynamics and Quantum Transport in Graphene Material

17.15 - 17.30 Oral (6)	<u>R. Narasimman,</u> Sujith Vijayan and K. Prabhakaran	<b>ABS - 1352 - ICA</b> Macrocellular Carbon Foam for CO <sub>2</sub> Adsorption
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**Tuesday, 17-12-2013**

**Session IV : 10.15 – 11.15**

10.15 - 10.45 Invited Talk (6)	<u>G. Baskaran</u>	<b>ABS - E-mail - ICA</b> Room Temperature Superconductivity, Spin Liquid and Mott Insulator: Silicene and Germanene as Prospective Playgrounds
10.45 - 11.00 Oral (7)	<u>Rajkumar Patra,</u> S. Ghosh, E. Sheremet, M. Jha, R.D. Rodriguez, D.Lehmann, A.K. Ganguli, O.D. Gordan, H. Schmidt, S. Schulze, D.R.T. Zahn, O.G. Schmidt	<b>ABS - 1408 - ICA</b> Cerium Hexaboride coated MWCNT: A New Electron Emitter Source for High Current Applications
11.00 - 11.15 Oral (8)	<u>Balaji Padya,</u> P.K. Jain and G. Padmanabham	<b>ABS - 638 - ICA</b> Reduction Thermo-kinetics in De-oxygenation of Free-standing Graphene Oxide Paper

**Session V : 11.45 – 13.15**

11.45 - 12.15 Invited Talk (7)	<u>Vitor M. Pereira</u>	<b>ABS - 1571 - ICA</b> Resonant tunneling in graphene pseudomagnetic quantum dots
12.15 - 12.30 Oral (9)	<u>Alaka Samal,</u> Dipti P. Das and J. Das	<b>ABS - 643 - ICA</b> Visible light driven photodegradation of dyes over novel reduced graphene oxide-silver vanadate (RGO-Ag <sub>3</sub> VO <sub>4</sub> ) nanocomposites
12.30 - 12.45 Oral (10)	<u>Brahmanandam Javaaji,</u> Abhilash R., B.M. Shenoy, D.Roy Mahapatra, G.M. Hegde	<b>ABS - 810 - ICA</b> Electronic Band Structure of Graphene on Silicon Nano-Texture
12.45 - 13.00 Oral (11)	<u>N. Selvakumar,</u> S.B. Krupanidhi and H.C. Barshilia	<b>ABS - 818 - ICA</b> Studies on hot-filament chemical vapor deposition grown graphene sheets
13.00 - 13.15 Oral (12)	<u>Tejendra K. Gupta,</u> Bhanu P. Singh, Satish Teotia, Sanjay R. Dhakate, R.B. Mathur	<b>ABS - 983 - ICA</b> MnO <sub>2</sub> decorated graphene nanoribbons with superior permittivity and excellent microwave shielding properties

**Session VI : 16.00 – 18.00**

16.00 - 16.30 Invited Talk (8)	Kallol Roy and <u>Arindam Ghosh</u>	<b>ABS - Email - ICA</b> Multifunctional Heterostructures of Graphene
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16.30 - 17.00 Invited Talk (9)	<u>Suk-Ho Choi</u>	<b>ABS - Email - ICA</b> All-graphene p-n vertical tunneling diodes and photodetector applications
17.00 - 17.30 Invited Talk (4)	<u>Masanobu Naito</u>	<b>ABS - 1532 - ICA</b> Stiffness and Conformation-Dependent Polymer Wrapping onto Single-Walled Carbon Nanotubes
17.30 - 17.45 Oral (13)	<u>Barun Kumar Barman</u> and Karuna Kar Nanda	<b>ABS - Email - ICA</b> One-step rapid synthesis of noble metals decorated reduced graphene oxide (rGO) at room temperature : an environment friendly approach
17.45 - 18.00 Oral (14)	<u>Pratiksha D. Dongare,</u> Priti Gupta, Sameer Grover, Sudipta Dubey, Hitesh Mangain, Arnab Bhattacharya, Mandar M. Deshmukh	<b>ABS - 1050 - ICA</b> A facile process for soak-and-peel delamination of CVD graphene from substrates using water
18.00 - 18.15 Oral (15)	<u>Vinayak B. Kamble,</u> Arun M. Umarji	<b>ABS - Email - ICA</b> In-situ deposition of Tin Oxide decorated reduced graphene oxide thin films and its gas sensing properties

**Poster Session :**

**Tuesday, 17-12-2013, 14.00 - 15.30**

04 - Poster - 01	Kiran Shejale, Rakesh Sharma, M. S. Roy and Mahesh Kumar	Investigation of Synthesized Graphene counter electrode for Dye sensitized solar cells	<b>ABS - 64 - ICA</b>
04 - Poster - 02	R. Parameshwari, S. Prabhu, K. Jothi Venkatachalam, V. Ramakrishnan and K. Jeganathan	Acid Free Synthesis of Graphene-ZnO Nanocomposites for Photocatalytic Applications	<b>ABS - 176 - ICA</b>
04 - Poster - 03	Supratim Maity and Kalyan Kumar Chattopadhyay	Enhanced Field Emission of ZnO-amorphous CNT Hybrid Nanostructure	<b>ABS - 277 - ICA</b>
04 - Poster - 04	M. Mamatha Kumari, M.V. Shankar, Prathap Haridoss, Priyanka A, Marenna B, D. Praveen Kumar, N. Lakshmana Reddy	Improved H <sub>2</sub> Production Efficiency of TiO <sub>2</sub> Nanoparticles/FMWCNT by Water Splitting Under Solar Irradiation	<b>ABS - 378 - ICA</b>
04 - Poster - 05	Nagaraju Sykam, Balaji Padya, P.K. Jain	Synthesis of Exfoliated Graphite through Microwave Irradiation	<b>ABS - 397 - ICA</b>
04 - Poster - 06	R. Maiti, S. Manna, A. Midya and S.K. Ray	Electrical & Optical Characteristics of Novel Graphene Oxide/n-Si Heterojunctions	<b>ABS - 412 - ICA</b>
04 - Poster - 07	Jianfeng Bao, Naoki Kishi, Ishwor Khatri, Tetsuo Soga	Nitrogen-doped carbon nanotubes synthesized on metal substrates from a single feedstock	<b>ABS - 430 - ICA</b>

04 - Poster - 08	T.C. Hsiao, M.W. Lai and S. Tsao	Transition metal doped powders used for high resistance SiC crystals	<b>ABS - 437 - ICA</b>
04 - Poster - 09	Nina Joseph, Jobin Varghese and Mailadil Thomas Sebastian	Effect of multilayer stacking and conductive coating on EMI shielding properties of PVDF-graphene composite	<b>ABS - 561 - ICA</b>
04 - Poster - 10	Kempahanumakkagari Sureshkumar, Sreeramareddy Mallikarjuna and Thippeswamy Ramakrishnappa	Nonenzymatic amperometric determination of glucose by CuO nanobelt graphene composite modified glassy carbon electrode	<b>ABS - 665 - ICA</b>
04 - Poster - 11	Sreeramareddy Mallikarjuna, K. Suresh Kumar and Thippeswamy Ramakrishnappa	In situ reduction and functionalization of graphene oxide with L-cystiene for simultaneous electrochemical determination of heavy metal ions at trace level	<b>ABS - 669 - ICA</b>
04 - Poster - 12	Vishakha Kaushik, A.K. Shukla, V.D. Vankar	Effect of Oxygen Adsorbates on Carbon Nanotubes for Field Emission Studies	<b>ABS - 681 - ICA</b>
04 - Poster - 13	L.R. Shobin, T. Kavinkumar, Kyu Chang Park and S. Manivannan	Effect of Post Treatment on Spray Coated Transparent Conducting Single Walled Carbon Nanotube Films	<b>ABS - 683 - ICA</b>
04 - Poster - 14	P. Dharmaraj, P. Sundara Venkatesh, R. Parameshwari, V. Ramakrishnan, S. Balakumar, K. Asokan and K. Jeganathan	Direct Growth of Graphene on 4H-SiC by Electron Beam Irradiation	<b>ABS - 696 - ICA</b>
04 - Poster - 15	Shaikshavali Petnikota, Sandeep Kumar Marka, M.V. Reddy, Vadali V.S.S. Srikanth, B.V.R. Chowdari	Preparation of "Exfoliated GO/Metal Oxides" by Graphenothermal Reduction method and its characterization	<b>ABS - 755 - ICA</b>
04 - Poster - 16	Subrata Ghosh, K.Ganesan, Shyamal R. Polaki, T.R. Ravindran, Nanda Gopala Krisna, M. Kamruddin and A.K. Tyagi	Evolution and defect analysis of graphene nanosheets grown by ECR-CVD	<b>ABS - 766 - ICA</b>
04 - Poster - 17	Rahul S. Diggikar and Bharat B. Kale	Hierarchical reduced graphene oxide and polyaniline nanofibers-reduced graphene oxide nanocomposites	<b>ABS - 828 - ICA</b>
04 - Poster - 18	K. Ganesan, Subrata Ghosh, Shyamal R. Polaki, T.R. Ravindran, M. Kamruddin and A.K. Tyagi	Rapid and catalyst free growth of graphene nanosheets by ECR-CVD	<b>ABS - 898 - ICA</b>

04 - Poster - 19	Xin Wang and Yongsheng Fu	Ferrite-graphene hybrids as a magnetically separable catalyst with high photocatalytic activity under visible light irradiation	<b>ABS - 902 - ICA</b>
04 - Poster - 20	Subramanya B, YathishUllal, A. Chitharanjan Hegde and D. Krishna Bhat	Hydrogen Evolution Reaction Studies on Co-Ni-FLG Composite Electrodes	<b>ABS - 914 - ICA</b>
04 - Poster - 21	Pranati Nayak, P.N. Santhosh and S. Ramaprabhu	Enhanced Field Electron Emission from CeO <sub>2</sub> nanoparticles decorated Graphene Sheets	<b>ABS - 953 - ICA</b>
04 - Poster - 22	L.M. Manocha, Arpana Basak, S. Manocha	Catalytic synthesis of Carbon Nanotubes on MMT Clay	<b>ABS - 988 - ICA</b>
04 - Poster - 23	L.M. Manocha, H.L. Gajera and S. Manocha	Role of microwave exfoliation on C/O ratio and BET surface area of Graphite oxide	<b>ABS - 988a - ICA</b>
04 - Poster - 24	Xiaoqian Meng, Junwu Zhu, Qiaofeng Han, Xiaoheng Liu, Xin Wang	3-Dimensional Ni(OH) <sub>2</sub> /graphene Hydrogels by Nickel ion induced self-assembly progress and their Properties	<b>ABS - 1061 - ICA</b>
04 - Poster - 25	B.V. Mohan Kumar, Rajesh Thomas, Ambily Mathew, G. Mohan Rao, D. Mangalaraj, N. Ponpandian, C. Viswanathan	Effect of Catalyst Concentration on the Synthesis of MWCNT by Single Step Pyrolysis	<b>ABS - 1075 - ICA</b>
04 - Poster - 26	N.G. Prikhodko, M. Auyelkhanzy, B.T. Lesbayev, Z.A. Mansurov	Obtaining of graphene in the combustion mode	<b>ABS - 1083 - ICA</b>
04 - Poster - 27	M.K. Kavitha, Pramod Gopinath and Honey John	Improved photocatalytic activity of Reduced Graphene oxide-ZnO hybrid	<b>ABS - 1106 - ICA</b>
04 - Poster - 28	Gedela V. Ramana, Nagavolu Charanadhar, Puttapati S. Kumar and Vadali V.S.S. Srikanth	Facile Synthesis of Reduced Graphene Oxide Using Solar Radiation	<b>ABS - 1112 - ICA</b>
04 - Poster - 29	Sounak K. Ray, Arun K. Sinha, Narendar Gogurla, Soumen Das, Sumita Santra	Graphene based NH <sub>3</sub> gas sensor using flexible platform	<b>ABS - 1159 - ICA</b>
04 - Poster - 30	Avik Kumar Mahata, Sisir Roy	Tunneling time for multiple barriers in graphene	<b>ABS - 1167 - ICA</b>

04 - Poster - 31	Deepak Kumar, Abhilasha Chouksey, Poornendu Chaturvedi, JSBS Rawat, R.P. Tandon and PK Chaudhury	Chemical Kinetics study of SWNT based thin films network for gas sensing	<b>ABS - 1229 - ICA</b>
04 - Poster - 32	E. Seliverstova, N. Ibrayev, D.K. Sarker, S. Mikhalovsky, R. Whitby	Preparation of Nanosized Langmuir-Blodgett Films of Graphene	<b>ABS - 1238 - ICA</b>
04 - Poster - 33	R. Ajay Rakkesh, D. Durgalakshmi and S. Balakumar	Facile Synthesis and Comparative Analysis on the Photocatalytic Performance of ZnO-rGO and TiO <sub>2</sub> -rGO Nanosheets under Solar Light Irradiation	<b>ABS - 1296 - ICA</b>
04 - Poster - 34	Anupam Midya, Narendar Gogurla, Arun Kumar Sinha, Sumita Santra, Samit K Ray	Selective Gas Sensing on Graphene Platform	<b>ABS - 1390 - ICA</b>
04 - Poster - 35	R.A. Barve, R.R. Patil, S.V. Moharil	Synthesis of Aluminium Oxycarbide phases in air	<b>ABS - 1487 - ICA</b>
04 - Poster - 36	G. Vishwakshan Reddy, and Loka Subramanyam Sarma	Fabrication of Pt-based bimetallic nanoparticles-decorated graphene catalysts	<b>ABS - 1533 - ICA</b>