



MRSI Newsletter

*A quarterly publication of the Materials Research Society of India
for circulation amongst its members*

Volume B 15 Number 1

January 2015

From the Editors' Desk

It is already 10 years since carbon dots have been first reported [J. Am. Chem. Soc. 126 (2004) 12736]. Carbon dots are generally small carbon nanoparticles (less than 10 nm in size) with various unique properties and have emerged an emerging class of fluorescent materials for applications in various fields including light emitting materials, catalysis, biomedicine and sensor. The applicability of carbon dots is shown to be widened further by doping. For example, the presence of nitrogen in carbon matrix creates positive charge on carbon, promptly attracts the oxygen (oxygen being negative when approaches the carbon) and therefore, nitrogen doped carbon dots can be used for a variety of applications associated with oxygen adsorption that includes gas sensing, pressure sensing, oxygen reduction reaction, reduction of 4-nitrophenol, etc.

The editor takes the opportunity to wish all the members of MRSI a very happy and prosperous year ahead.

K K Nanda
Editor

For more details about the activities of MRSI, members are advised to visit the society's website at

www.mrsi.org.in

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MRSI NEWSLETTER

Volume B 14, Number 1
January 2015

The MRSI Newsletter is a quarterly update published by the Materials Research Society of India. Members are requested to contribute information of interest to Materials Science community. Members can inform through the Newsletter, recognitions/awards received by them, changes in address, forthcoming events, and any interesting scientific/technological developments in the area of materials. The relevant information should be sent to the following address:

Editors

MRSI Newsletter

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Awards & Distinctions Conferred on Members

We are happy to report that the following members of Materials Research Society of India have received awards and distinctions shown against their names. MRSI congratulates them.

G Banerjee	“D N Agarwal Memorial Award 2014” by Indian Ceramic Society
Manoj Mohapatra	Young Scientist Award from Department of Atomic Energy (2013)
Pratap Raychaudhuri	Shanti Swarup Bhatnagar Prize in Physical Sciences -2014

P.S: Members are requested to communicate to the Editorial office about the Awards, Honours and Distinctions they have received from various agencies.

NOTICE

ANNUAL GENERAL BODY MEETING OF MRSI

The **Twenty Sixth Annual General Body Meeting** of MRSI will be held on **10th February 2015** between **17.30-18.30 hrs** at the University of Rajasthan, Jaipur.

The Agenda for the Meeting is as follows:

- **Welcome by the President, MRSI**
- **Confirmation of the Minutes of the 28th Council Meeting and action thereon**
- **Presentation of the Annual Report for 2014**
- **Report on International links of Materials Research Society of India**
- **MRSI-Publications-Report by the Editor**
- **Award for the Best Paper published in Bulletin of Materials Science**
- **Presentation of the Statement of Accounts for 2014**
- **Election of Honorary Members**
- **Venue for the 27th AGM, 30th Council Meeting (2016) & 28th AGM, 31st Council Meeting (2017)**
- **Reconstitution of the council of MRSI for the period 2015-2018**
- **Items from the members**
- **Any other matter**

Kindly communicate the details of the AGBM to all the members of MRSI.

26th ANNUAL GENERAL MEETING OF MRSI AND THEME SYMPOSIUM ON

MATERIALS FOR INCLUSIVE DEVELOPMENT

FEBRUARY 09-11, 2015

THE UNIVERSITY OF RAJASTHAN, JAIPUR

TENTATIVE PROGRAMME

FEBRUARY 09, 2015	17.15-17.45 hrs High Tea
Venue: The University of Rajasthan, Jaipur	18.00-20.00 hrs Cultural Programme followed by Dinner
08.30-9.00 hrs MRSI-AGM Registration	10th February 2015
09.00-09.30 hrs Inaugural function	Venue : The University of Rajasthan, Jaipur
09.30-10.30 International Medal for Materials Science and Technology Award Lecture Prof. Peter Bruce, Oxford University, UK <i>Materially Better Energy Storage</i>	09-9.45 hrs MRSI-ICSC Superconductivity and Materials Science Annual Prizes Dr. George Thomas, IISER, Trivandrum <i>Optical Properties of Semiconductor Quantum Dots: Role of Crystal Structure and Surface Properties</i>
10.30-11.00 hrs High Tea	09.45-10.30 hrs MRSI Distinguished Lecturership Award Prof. B N Dev, IACS, Kolkata <i>Quantum structures and phenomena – an emerging perspective</i>
11.00-12.00 hrs Distinguished Materials Scientist of the year Award Lecture Prof. A K Raychaudhuri, S N Bose Centre Kolkata <i>Physical measurements on a single nanowire: Materials Science at a new scale</i>	10.30-11.00 hrs Tea
12.00-13.15 hrs Felicitation of Prof. CNR Rao/ Award Function	11.00-11.45 hrs CNR Rao Prize Lecture in Advanced Materials Prof. D D Sarma, IISc, Bangalore <i>Future energy materials</i>
13.15-14.00 hrs Lunch	11.45-12.30 hrs MRSI Distinguished Lecturership Award Dr. Dhananjai Pandey, BHU, Varanasi <i>Title awaited</i>
14.00-15.00 hrs MRSI Silver Jubilee International Medal Prof. A Suzuki, Yokohama National University, Japan <i>What is a Gel? –from a Point of View of the Phase Transition of Gels</i>	12.30-13.00 hrs Medal Lecture 4 Dr. Beena Rai, TRDDC, Pune <i>Molecular modeling of the self assembly of surfactants at interfaces and its application in the design and development of reagents for mineral processing applications</i>
15.00-15.45 hrs MRSI-ICSC Superconductivity and Materials Science Annual Prize Prof. Samit K Ray, IIT, Kharagpur <i>Silicon Nanostructures for Electronic and Photonic Devices</i>	13.00-14.00 hrs Lunch
15.45-16.15 hrs Medal Lecture 1 Dr. Nikhil R Jana, IACS, Kolkata <i>Functional Nanomaterials in Solving Biomedical, Environmental and Energy Issues</i>	14.00-15.30 hrs Poster Session I
16.15-16.45 hrs Medal Lecture 2 Prof. S Gopukumar, CERI, Karaikudi <i>Emerging Materials for Solar Chargeable Lithium ion Batteries</i>	15.30-15.45 hrs. Tea
16.45-17.15 hrs Medal Lecture 3 P. P. Chattopadhyay, IEST, Shibpur <i>Microstructure Based Design of Materials</i>	15.45-16.30 hrs MRSI Distinguished Lecturership Award Prof. G K Ananthasuresh, IISc, Bangalore <i>Judicious Use of Materials in Optimal Design of Compliant Devices</i>
	16.30-17.00 hrs MRSI Medal Lecture 5 Dr. V Kumar, C-MET, Thrissur <i>Piezoelectric Thin Films for MEMS applications</i>

17.00-17.30 hrs	MRSI Medal Lecture 6 Dr. KRS Priolkar, Goa University, Goa <i>EXAFS as a tool for understanding mechanism in functional materials</i>	15.00-16.00 hrs	G C Jain Memorial Lectures Dr. Anjali Sharma, University of Delhi, Delhi <i>Development of Tin Oxide (SnO₂) thin film based low temperature operated NO₂ gas sensors”</i>
17.30-18.30 hrs	Annual General Body Meeting		
18.30-19.00 hrs	MRSI Medal Lecture 7 Dr. Chandana Rath, BHU, Varanasi <i>Anomalous Magnetic Properties in Nanostructured Semiconducting Materials</i>		Dr. Satyendra Singh, University of Allahabad, Allahabad <i>Sensing applications of nanostructured ferrites</i>
19.00 hrs	Dinner		Dr. K R Nemade, Amaravati University, Amravati <i>Synthesis and Characterization of Graphene/MOX Quantum Dots Composites for Resistive Solid State Gas Se Application</i>
February 11, 2015 Venue: The University of Rajasthan, Jaipur			
09.00-09.30 hrs	Theme Lecture 1		Students Project Presentation Mansi V Popat, Saurashtra University Rajkot Sovan Kumar Patra, BIT, Ranchi
09.30-10.00 hrs	Theme Lecture 2		
10.00-10.30 hrs	Medal Lecture 8 Dr. N V Chandra Shekar, IGCAR, Kalpakkam <i>Structure, synthesis and properties of materials under high pressure</i>		
10.30-10.45 hrs	Tea	16.00-16.30 hrs	Medal Lecture 13 Dr. R Subasri, ARCI, Hyderabad <i>Commercialization of Sol-Gel Nanocomposite Coating Technology: Chall and Perspectives</i>
10.45-11.15 hrs	Medal Lecture 9 Prof. K K Bamzai, University of Jammu, Jammu <i>Orthoferrite single crystals: Preparation, characterization and modification of its properties by swift heavy ions</i>	16.30-17.00 hrs	Tea
11.15-11.45 hrs	Medal Lecture 10 Prof. Priya Mahadevan, S N Bose Centre, Kolkata <i>Electrostatics with real materials</i>	17.00-17.30 hrs	Medal Lecture 14 Dr. Ajay Dhar, NPL, New Delhi <i>Development of novel high-performance thermoelectric materials & devices</i>
11.45-12.15 hrs	Medal Lecture 11 Dr. V M Jali, Gulbarga University, Gulbarga <i>Investigations on Swift heavy ion, Gamma and Electron irradiation induced modifications in Ferroelectric, Dielectric properties of Lead based and Li doped ZnO Ferroelectric Thin Films</i>	17.30-18.00 hrs	Medal Lecture 15 Prof. V Adyam, IIT, Kharagpur <i>Multicaloric effect in multiferroics</i>
12.15-12.45 hrs	Medal Lecture 12 Dr. G T Chandrappa, Bangalore University, Bangalore <i>Indigenously Developed Nanomaterials and Their Applications in Solar Water Splitting and Purification of Drinking Water</i>	18.00-18.30 hrs	Medal Lecture 16 Prof. Ashish Garg, IIT, Kanpur <i>Achieving room temperature magnetoelectricity (and multiferroism) in Gallium Ferrite</i>
12.45-13.30 hrs	Lunch	18.30-19.00 hrs	Concluding Function
13.30-15.00 hrs	Poster Session II	19.00 hrs	Dinner
		The Secretariat, 26 AGM of MRSI, University of Rajasthan, Jaipur, Mobile : +919314885841 ,Email ID: mrsi26agm.jai@gmail.com	

New Members

Enrolled between September 1 December 31, 2014

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CALENDAR OF EVENTS
(FEB-DEC 2015)

February 9-11, 2015, 26th AGM of MRSI, Dr. Usha Singh, Convener, Director, CDPE, University of Rajasthan, Jaipur-302004, +919314885841, Email ID: mrsi26agm.jai@gmail.com

February 4-5, 2015, National Conference on Recent Trends in Microwave Techniwues and Optical Communication, Dr. Ritu Jain, Head, Dept. of Physics, The IIS University, Jaipur, Mobile: 9783307196, email: ritu.jain@iisuniv.ac.in / Dr. Nidhi Bhargava, Addl Head, Dept. of Physics, the IIS University, Jaipur, Mobile: 9783307158, Email: nidhi.bhargava@iisuniv.ac.in

February 17-18, 2015, National symposium on innovations in composites for general purpose to high end applications, Prof. (Dr.) S.Manocha, Convener NSICM 15, University School of Basic and Applied Sciences, GGS Indraprastha University, Sector 16C, Dwarka, New Delhi, Phone: 011 25302431, 09953203831, Email: nsicha215@gmail.com, sm_manocha@rediffmail.com,

December 7-11, 2015, 18th International Workshop on Physics of Semiconductor Devices (IWPSD 2015) Conference Chair, Prof. S B Krupanidhi, Materials Research Centre, Indian Institute of Science, Bangalore 560 012, Tel: -080-22932882, Fax: 080-23602028, Email: secretariat@iwpsd2015.org.in, Website: www.iwpsd2015.org.in

Members are requested to give information about the conferences/symposia/workshops they are organizing well in advance so that the same can be inserted in the “calendar of events”.

Patron Membership

Professional Societies, Research bodies, Laboratories and Companies willing to support activities of MRSI (through a one-time contribution of Rs. 50,000/- are enrolled as Patron members by the Council of the MRSI.

Privileges of Patron Members:

- Publication of their names in MRSI Newsletter
 - Bulletin of Materials Science / MRSI Newsletter
 - MRSI Update
- Free supply of all periodicals published by MRSI such as:

-	Symposium proceedings at prices applicable to members
-	Display of Company Literature free of charge at MRSI meetings
-	Discounts on advertisements in Newsletter
-	Advance notification of programmes and events
-	Free employment Advertisements in the MRSI Newsletter
-	Registration of 2 company representatives in each society meeting at member registration rates

We appeal to all organizations /laboratories/companies involved in the R&D/Educational activities of Materials Science and Technology to become Patron members.

Request for Patron membership may be made to:

**Prof. S B Krupanidhi
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