

Tentative Program

National Symposium
On
Nanoscience: Theory and Applications
November 6-7, 2009

Preceded by Workshop
On
Microwaves: Principles and Applications
November 5, 2009

(NASTA-MAP-2009)

Venue
Seminar Room

Centre for the Study of Law and Governance

Jawaharlal Nehru University, New Delhi-110067

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Naba Hazarika	JNU
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For further details and Life Membership contact Prof. J. Behari, Secretary, Microwave Applications Society of India, School of Environmental Sciences, Jawaharlal Nehru University, New Delhi- 110067. Phone: +91-011-2670 4323, Fax: +91-011-26717586, 26717502, E-mail : masijnudelhi@gmail.com.

Inaugural Session

Venue:

Seminar Room

Centre for the Study of Law and Governance, Jawaharlal Nehru University
New Delhi

Workshop on Microwave: Principles and Applications

5th November 2009 (9:00-10:30)

- ❖ About the symposium: **J. Behari**
- ❖ Welcome remarks: **Dean, SES**
- ❖ Keynote address: **A.P. Kulshreshtha**
- ❖ Theme talk: Architecture of Embedded Tunable Circular Microstrip Antenna: **Ashok De**
- ❖ Concluding remark: **V.P. Sandlas**
- ❖ Vote of thanks: **Paulraj R**

High Tea (10:30-11:00)

Session I. MICROWAVE MEASUREMENT: THEORY AND APPLICATIONS 11:00 -12:20

Chairs: V.P. Sandalas; Ashok De

1. Microwave Applications, Remote Sensing and Boiology: **J. Behari**
2. Biological Applications of MRI and NMR **N.R. Jagannathan (AIIMS, New Delhi)**
3. Microwave Integrated Circuits Design- Essentials **S. Raghavan, NIT, Trichy.**
4. Modified Circular Patch Antenna with Key Shape Slot for Tri- Band of Wireless Communication Systems: **Garima, D. Bhatnagar, V.K. Saxena and J.S. Saini, Rajasthan University.**

Session II. MICROWAVE MEASUREMENT TOOLS AND DESIGN 12:20 -1:30

Chairs: S. Raghavan; Prof. Ajay Chakraborty

1. Introduction to Electromagnetic Interference (EMI) and Electromagnetic Compatibility (EMC) **Prof. Ajay Chakraborty, IIT Kharagpur**
2. A novel dual frequency s -band rectangular Microstrip antenna for radar and space Communication, **Sharma V, Sharma KB, Saxena VK, Bhatnagar D**
3. Dielectric Studies of Wheat in Powder Form at Microwave Frequencies. **Kavita Sharma, Nidhi Bhargava, Ritu Sharma and K. S. Sharma**

Lunch: 1:30 – 2:30

Chairs: Lt General Naresh Kumar AVSM, VSM R. Mathur, AIIMS, New Delhi;

1. Effect Chronic Exposure to Magnetic Field Restores Function Following Hemi Section of Spinal Cord: An Electro-Physiological and Behavioral Study in Rat: **Suman Das, Jain S* and Mathur R (AIIMS, New Delhi).**
2. Biological correlates of microwave radiation, **Paulraj R and J.Behari (JNU, New Delhi)**
3. Bio-Impedance: Human Body Composition Estimation and Health Prediction: **D.V. Rai**
4. Body Fat Assessment by Bioelectrical Impedance and Its Correlation with Cardiac Function: **Jayanand and D.V. Rai**
5. Effect of 2.45GHz microwave on biological system: **C.M. Chaturvedi, BHU, Varanasi**
6. Microwave assisted synthesis characterisation and antimicrobial activity of Sm(III) and Tb (III) amide complexes derived from heterocyclic amines: **Jatolia SN, Bhandari HS, Prajapat G and Bhojak N**
7. The Health Effects of Microwave Pollution: **Col V.S. Tanwar**

TEA

Chairs: R.S. Sharma, ICMR, New Delhi; Col V.S. Tanwar

1. Health impact of EMF radiation of 3G and 2G. **Anamika Upadhyay**
2. Effect of mobile phone EMF on early growth and development in chick embryo: **Ved Parkash Sharma, Upma Bagai, and Ravinder Kumar Kohli**
3. Radiation hazards and safety: **Jai Balwant Dabar and Jagbir Dhillon**
4. Evaluation of genotoxic effects in male wistar rats following microwave exposure: **Sanjay Kumar, Kavindra Kr. Kesari and J. Behari**
5. How radiation affects? Its physical & biological aspects and safety measures: **Seema Raj**
6. Dielectric studies of organic contaminated soils at microwave frequencies: **V K Gupta, R A Jangid and Seema Yadav**

CONCLUDING REMARKS

TEA

6th November 2009
National Symposium on Nanoscience: Theory and Applications

Session I:	NANO SYNTHESIS AND BASIC CONCEPTS	9.00 -10.30
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Chair: D.C. Dubey, IIT, Delhi

1. Microemulsion - based synthesis of nanostructures: **A.K. Ganguli, IITD**
2. Carbon nanotubes –their Synthesis and Applications: **R.B. Mathur, NPL**
3. Carbon Nano Tube based Field Emitters for Vacuum Microelectronic Devices: **Harsh**
4. Synthesis of nanocrystalline ZnO powder via sol-gel route for an efficient dye sensitized solar cell: **R.M. Mehra, Delhi University**

High Tea (10:30-10:45)

Session II	INAUGURATION	10.45 -12.00
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About the Symposium: J. Behari
Welcome Note: Dean, SES, JNU
Inauguration and Release of Book: Rajendra Prasad
Theme Talk: Nanoscience Today: Vikram Kumar
Concluding Remarks: H.B. Bohidar
Vote of Thanks: Paulraj R

Tea

Session III	NANO IN MEDICAL SCIENCES	12.00 -1.30
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Chairs: A.K. Verma and V.P. Sandlas

1. Application of Nanotechnology in Bio-Medicine and Waste Water Treatment: **Divya Prakash, Dhermendra Tiwari, Kavindra Kr. Kesari and J. Behari**
2. Role of genetic factors and oxidative stress in male infertility: **Reema Dada, AIIMS, New Delhi**
3. Interaction of microorganism and nanoparticles for nanomedicine: **Ajit Varma, Ram Prasad, Suman Nagpal, V K Jain**
4. Interaction between poly-dispersed single walled carbon nanotubes with murine erythrocytes: **Sumedha Sachar, Niti Puri and Rajiv K. Saxena**
5. Smart Polymeric Materials: Biotechnological and Biomedical applications: **Premlata Kumari, Surat, Gujrat**

LUNCH (1:30-2:30)

Chairs. H.N. Verma, JNU, Jaipur; B.K. Singh, ICMR, New Delhi

1. Study of n-HAps and its fluoride removal capacity: **Johnsonbabu G, Chidambaram S, Ramanathan AL, Narayana kalkura S, Manikandan S, Karmegam U, Paramaguru P and Singaraja C**
2. Cellular Uptake, Pharmacokinetics & *in-vivo* biodistribution of hydrophilic Paclitaxel Loaded Biopolymeric Nanoparticles[PLBN]: **Anita K. Verma**
3. Nano-Material in the Environment: Bio-Availability, Behavior and its Implications: **B.K. Singh, R.S. Sharma, A Rajanna, ICMR, New Delhi**
4. Carbon Nanotubes: A Major Breakthrough in Nanotechnology, **Jagdish Shivhare**
5. Synthesis of TiO₂-SnO₂ nanocomposite through physiochemical route and its LPG Sensing: **Yadav BC, Shukla T, Singh R and Srivastava V.**

TEA

Chair: H.C. Gupta, IITD, A.L. Ramanathan

1. Application of Nanotechnology in Conversion of Metro Solid Waste as an Electronic Material: **S. Rajarajan, J. Raja**
2. Development of transducer matrices based upon nanostructured conducting polymer for application in biosensors: **Deepshikha and T. Basu**
3. Metal oxide Nanocomposites for improved photocatalytic application: **Tanuja Mohanty, SPS, JNU**
4. Synthesis and characterization of Zn_{1-x}Co_xS nanocrystals for photo-catalytic applications, **Mansi Chitkara, Karamjit Singh, Tinu Bansal, I S Sandhu and H S Bhatti**

MASI GBM and TEA

7th November 2009

Chairs: Col V S Tanwar J. Behari

1. Binding of Multi-carbon Nanoparticles Obtained from Soot to Pulmonary Surfactants. **H.B. Bohidar (JNU, New Delhi)**
2. Carbon nanotube based field emission display **Dr. Husain, EMU**
3. Role of magnetic iron oxide nanoparticles and microwave radiation on oxidative stress in mice: **N.K. Samal and Paulraj R.**
4. Applications of plant viruses in Nanotechnology: **Dr. S.K. Srivastava**

Chairs: R.S. Sharma; Husain, JMI

1. Time and dose-dependent antimicrobial potential of Ag nanoparticles synthesized by top-down approach: **Dharmendra Tiwari, J. Behari and P. Sen**
2. Impact of Silver Nanoparticle on Environment and Human Health: **Dr. Reena Sharma**
3. Positive and Negative Impacts of Nanotechnology on the Environment: **Dr. Indu Bala Sharma**
4. Bionanocomposite based on poly (urethane- *Pongamia glabra* fattyamide)/nanoclay, **Fahmina Zafar, Eram Sharmin, Mohammad Kashif and Sharif Ahmad.**
5. Nanomedicine: An Introduction, **Vibha Pathak & Rashmi**
6. Nanomedicine :A promising tool for the treatment of cancer, **Sunita Jain and S C Joshi**
7. Carbon Nanotubes – A Boom to Nanotechnology in Various Applications, **Lavneet Singh¹, Savleen Singh², Rahul Agarwal**
8. Nanotechnology in Wastewater Treatment and Environmental implications: **Dr. Nasir Zameer Qureshi and Surya Bhushan Tiwari**
9. Promise of Nanomaterials for water clean up, **Dr Reena Dahiya, GITM, Gurgoan**
10. Organic-inorganic nanohybrids enroute green chemistry: Sharif Ahmad*, **Deewan Akram, Fahmina Zafar and Eram Sharmin**

Lunch: 1.00 – 2.00

H Bohidar D V Rai

11. Synthesis, characterisation and antibacterial activity of capped silver nanoparticles: **Aruna Jyothi Kora, Lori Rastogi and J Arunachalam**
12. Stability, pH and viscosity relationships in zinc oxide based nanofluids subject to heating and cooling cycles: **Udbhav Ojha¹, Subhrakanti chakraborty**
13. A critical review of the adsorption of sulfur derivatives on low cost adsorbents and their potential applications in their removal from liquid fuel streams: **Kumar Sachin, Vajpeyi Priyanshu, Kulshrestha Saurabh**
14. Self-aggregation of multi-carbon nanoparticles in polar, nonpolar and binary solvents: **Pradip Kumar* and H.B.Bohidar**
15. Phase Behavior of the Nanoclay-Water system: **Ravi Kumar Pujala, H.B.Bohidar**
16. Surface selective binding between nanoclay and protein molecules: **Nisha Pawar and H.B. Bohidar**
17. Nano domain formation during gelation of agar. **Shilpi Boral, A. Saxena and H.B.Bohidar)**

SESSION III.

CONCLUDING REMARKS

3.00-3.30

Prof. H.B. Bohidar, JNU, New Delhi

Tea

SESSION IV. TECHNICAL SESSION

3.45 -4.45

Laboratory Visit

SES, JNU

Session III. PANEL DISCUSSION & INTERACTION

4.45-5.45

Electromagnetic Interaction and Nanoparticle Applications: Future trends

Coordinator: V.P. Sandlas

1. H.C. Goel, AMITY Uni.
2. Col. V.S. Tanwar
3. H.N. Verma, JNU, Jaipur
4. D.C. Dube, IIT Delhi
5. V.K. Jain Amity University

TEA

Note

1. There will be best poster presentation award. A black board, pins and tape will be provided for sticking the poster. Presenters are advised to stick their posters on 5th November and be available for personal presentation for ten minutes in presence of Chair and Co chair. Another 5 minutes will be for discussions.
2. All the delegates are requested to register by 1st November. No registration will be possible on 5th Nov onward.
3. Please bring full length paper on 5th November (two hard copies and on cd).