



MRSI Newsletter

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for circulation amongst its members*

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From the Editors' Desk

The Fifteenth Annual General Meeting of MRSI was held at BHU, Varanasi during February 9-11, 2004. By all counts (the award lectures, delegate participation, poster presentation, Theme Symposium etc) it was a resounding success. The organizers of the event need to be specially complimented for the excellent arrangements made for the conduct of the event. It has also been decided at this meeting that the 16th AGM will be held at Pune in 2005.

A new Council under the presidentship of Dr. R A Mashelkar, FRS, has been constituted to hold office during 2004-07. Under his leadership, we are sure that our society will perform with renewed dynamism.



**H L Bhat
R V Krishnan**
Editors

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

www.igcar.ernet.in/mrsi

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President's Message



The Materials Research Society of India is a vibrant professional body with more than two thousand members. Many of the members of MRSI are leaders in the theory and practice of materials science, not only in the Indian context but within the global context.

Materials research today is the most exciting endeavour with its vast potential to impact the Indian economy and the society. MRSI can dream to become the most dynamic engine to bring about this transformation. But, for this to happen, we must first have an effective communication within the family of MRSI.

The communication amongst the members and dissemination of information is effectively carried out by the MRSI Newsletter. I am happy that the Newsletter is discharging this responsibility so wonderfully well. I compliment Professor H.L. Bhat and Dr. R.V. Krishnan—the Editors of this Newsletter and Prof. S.V. Subramanyam, Vice President—General Secretary, MRSI for their untiring efforts.

Dr. R A Mashelkar
President, MRSI

MRSI COUNCIL (2004-2007)

Founder President	C N R Rao
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Past Presidents	D Chakravorty R Chidambaram S K Joshi P Rama Rao
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Chapters				
Bangalore	Bhopal	Chennai	Gujarat	Hyderabad
Jamshedpur	Kalpakkam	Kharagpur	Kolkata	Mumbai
New Delhi	Roorkee	Thiruvananthapuram	Varanasi/Kanpur	Pune

Subject Groups				
Building Materials	Biomaterials	Ceramics & Glasses	Composites	Computational Materials Science
Electronic Materials	Fracture Materials	Magnetic Materials	Materials Characterization	Metals
Polymers	Processing Technologies	Surfaces & Interfaces	Thin Films	Materials under High Pressure
Materials for Rural Technology				

The Chapter Chairmen have been requested to hold the Chapter AGM and to reconstitute their Chapter Committees for the period 2004-07.

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.

Rao C N R Somiya Award for the year 2004 from IUMRS

Mashelkar R A Vice Chairperson of WHO Commission on Intellectual Property Rights, Innovation and Public Health (CIPIH)

Chopra K L Aryabhata Medal for the year 2004 from INSA

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

Chapter News

Bhopal Chapter

Seminar on Recent Trends in Building Materials

The Seminar on "Recent Trends in Building Materials" took place at Gyan Vigyan Bhawan, Barkatullah University, Bhopal, during February 26-27, 2004. It was organized jointly by MRSI, Bhopal Chapter and RRL Bhopal. The seminar was attended by 100 delegates belonging to R&D Organizations, Academic Institutions, Ministries, Manufacturing sectors, and users. Five themes were identified and accordingly five technical sessions were arranged on the topics: (i) New Building Materials, (ii) Waste Utilization, (iii) Building Materials Characterization and Design, (iv) Fibre Reinforced Composites and (v) Performance, Durability and Application of New Materials

**A K Jha, Secretary
MRSI, Bhopal Chapter**

Special Announcement

MRSI has made a proposal to IUMRS to host the International Conference on Advanced Materials (IUMRS-ICAM) in India during December 2007. The probable dates are December 9-15, 2007. We hope our proposal will be considered favourably by IUMRS.

Students' Projects

MRSI will partially support upto 10 projects of students (B.Tech, M.Sc, M.Tech, ME, Ph.D) in the area of Materials Science & Technology under the supervision of a MRSI member. Proposals are invited before **September 30th 2004.**

NOTIFICATION

important

The Materials Research Society of India will be bringing out an updated directory of its members. Kindly inform us if there is any change in your affiliation, telephone number, fax number and email ID. We also would like to indicate your fields of interest in the directory based on the following subject groups of MRSI. Kindly let us know the same.

1. Building Materials
2. Biomaterials
3. Ceramics and Glasses
4. Composites
5. Computational Materials Science
6. Electronic Materials
7. Fracture
8. Magnetic Materials
9. Materials Characterization
10. Metals
11. Polymers
12. Processing Technologies
13. Surfaces & Interfaces
14. Thin Films
15. Materials under High Pressure
16. Materials for Rural Technology
17. Others, (please specify)

The last date for receiving the information is 30.6.2004

15th AGM of MRSI- A Report



The 15th AGM of MRSI was held at Banaras Hindu University during February 9-11, 2004. The inaugural function of the meeting was held in the main hall of Swatantrata Bhawan on Feb. 9, 2004 at 9 AM. The function had the touch of oriental tradition of the campus that included the rendering of traditional Kulgeet of the University composed by Professor Shanti Swarup Bhatnagar. Professor D.Chakravorty gave a technical presentation on electron transport in nanomaterials and ceramic glasses. Professor P.Ramachandra Rao, Vice-Chancellor of Banaras Hindu University in his address gave glimpses of the growth of materials industries in this subcontinent. The technical session began with a lecture by the Distinguished Materials Scientist of the year Professor T.V.Ramakrishnan, FRS (BHU). This was followed by ICSC-MRSI annual prize lectures by Professor D.Pandey, (BHU) and Professor S. B. Krupanidhi, (IISc). The two afternoon sessions were devoted to Medal lectures. Dr. B. D. Malhotra (NPL, Delhi), Dr. A.K.Nandi (IACS, Kolkata), Dr. D.Basu (CGCRI, Kolkata), Dr.V.Venugopal (BARC, Mumbai), Dr.M.Vijayalakshmi (IGCAR, Kalpakkam) and Dr.T.L.Prakash (CMET, Hyderabad) presented their work on different aspects of materials advancement. Professor D.Chakravorty President of MRSI presented medals and certificates to all the awardees in the evening. The General Body approved the reconstitution of the Council for the years 2004-07.

The morning session on Feb. 10, 2004 started with the theme symposium lectures on “*Materials for Light and Smart Structures*”. Professor P.Ramachandra Rao, Vice-Chancellor, Banaras Hindu University chaired the session. He introduced the speakers and spoke on the relevance of the theme symposium for automobile and packaging industries. Professor U.Ramamurthy (IISc, Bangalore) and Dr.A.Gokhale (DMRL, Hyderabad) delivered lectures on *Metallic Foams* and *Al-Li alloys: Science and Technology*. During the second session of the day, Dr.B.C.Pai (RRL, Trivandrum) and Dr.R.MV.G.K.Rao (NAL, Bangalore) gave their medal lectures. Theme Symposium lectures were delivered by Professor O.N.Srivastava (BHU) Sri.M.Subba Rao (NAL, Bangalore) and Professor C.Venkatesan (IIT, Kanpur) in the evening session. This was followed by an excellent cultural programme from the Faculty of Performing Arts and some guest artists of the city.

In the morning session on Feb. 11, Professor B.R.Mehta (IIT, Delhi), Professor P.Ayyub (TIFR, Mumbai), Dr.S.K.Mishra (NML, Jamshedpur) and Professor B.S.Murty (IIT, Kharagpur) gave their medal lectures. A special session on “*Materials for Rural Technology*” was organized in the afternoon. This was chaired by Professor E.S.Raja Gopal (Bangalore). Dr.Deepak Bhatnagar (TIFAC, Delhi) initiated the discussion by indicating the prospect and importance of the area. Dr.S.K.Tripathy (Varanasi) spoke on importance of herbal medicines and protection in the GATT era. Dr.Sukomal Ghosh (NML, Jamshedpur) and Dr.Yegneswaran (RRL, Bhopal) gave glimpses of the activities being pursued in their respective laboratories concerning rural technology. The Annual General Meeting concluded on the afternoon of February 11, 2004 with a special session chaired by Dr. D Chakravorty in which participants got to express their views on the organization of the meeting.

Two special sessions one each on 10th and 11th were devoted for the posters during which ample time was provided for discussion on the posters. The general quality of the posters presented was impressive. In all 153 posters were presented during the AGM. Bio Materials, Building Materials, Ceramics and Glasses, Composites, Electronic Materials, Thin Films, Magnetic Materials, Materials Characterization, Metals and Alloys, Nano Materials, Polymer/Rubber and Processing Techniques were the subject groups for the posters. Amongst these, the following four posters were selected for the Best Poster Award.

- *MTMS Based Superhydrophobic Silica Aerogels*
Manish M Kulkarni & A Venkateswara Rao, Department of Physics, Shivaji University, Kolhapur.
- *Modifications to the Phase Diagram of $(1-x)\text{Pb}[(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3]-x\text{PbTiO}_3$ Ceramics*
Akhilesh K Singh, Dhananjai Pandey & Oksana Zaharko, Institute of Technology, Banaras Hindu University, Varanasi

- *Photoimageable Conductor Composition for High Density Electronic Packaging of Smart Devices and Allied Subsystems*
G G Umarji, Supriya A Ketkar, R Marimuthu, G J Phatak, T Seth, D P Amalnerkar & U P Mulik, Centre for Materials for Electronics Technology (C-MET), Pune
- *Spin Probe ESR Studies of PEG_xLiClO₄ Solid Polymer Electrolyte Systems*
Shirvalli N Bhat, Ajay Sharma, S Srinivas Rao and S V Bhat, Department of Physics, Indian Institute of Science, Bangalore.

R K Mandal
Secretary, 15th AGM of MRSI

New Members

Enrolled between January 1 and March 31, 2004

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CALENDAR OF EVENTS, APR-DEC 2004

April 12-16, 2004 , IUMRS ICEM, San Francisco, California, USA, and MRS Spring Meeting
April 19-22, 2004 , Workshop on Molecular Motors, Prof. Dr. Erwin Frey, Abteilung Theorie, Hahn-Meitner Institut, Glienicke Strasse 100, D-14109 Berlin, Fax: ++49-30-8062-2098, Email: frey@hmi.de
May 24-28, 2004 , E-MRS Spring Meeting, Prof. Paul Siffert, E-MRS Headquarters, BP No. 20 67037, Strasbourg Cedex 2, France, Tel: +33388106543, Fax: +33388106343, Email: emrs@phase.c-strasbourg.fr, Website: www-emrs.c-strasbourg.fr
May 30-June 4, 2004 , 3 rd International Conference on Computational Modeling and Simulation of Materials and Special Symposium on Modeling and Simulating Materials Nanoworld, Climtec, P O Box 174-48018 Faenza-Italy, Tel: +0546 22461, Fax: +0546 664138, website: www.technagroup.it/modeling.htm
May 31-June 27, 2004 , Workshop on Geometry and Materials Physics: Making the Connection. Organizers: Veit Elser (veit@lassp.cornell.edu), Randall Kamien (kamien@physics.upenn.edu), Meigan Kerr (mkerr@wellesley.edu), Thomas Powers (Thomas_Powers@brown.edu)
June 14-18, 2004 , International Conference on Mechanochemical Synthesis and Sintering, Prof. N Lyakhov, Institute of Solid State Chemistry & Mechanochemistry, Kutateladze 18, Novosibirsk 630 128, Russia, Tel: 7(383-2) 32 86 83, Fax: 7(383-2)32 28 47, Email: conf@solid.nsc.ru, Website: http://www.solid.nsc.ru/MSS2004
July 3-8, 2004 , ICMAT 2005 and IUMRS ICAM 2005, ICMAT Secretariat, Materials Research Society Singapore, Institute of Materials Research and Engineering, 3 Research Link, Singapore 117 602, Tel: (65) 6874 1975, Fax: (65) 6777 2393, Email: icmat@mrs.org.sg
July 14-16, 2004 , 2 nd International Conference on Asian Consortium on Computational Materials Science (ACCMS-2), Novosibirsk, Russia, details awaited
July 18-22, 2004 , Powders & Grains 2005, for details visit website http://www.ical.uni-stuttgart.de/~pg2005
July 19-30, 2004 , Electronic Structure Methods & Their Applications, for details visit website http://agenda.ictp.trieste.it/agenda/current/fullAgenda.php?email=0&ida=a0374
September 6-10, 2004 , E-MRS Fall Meeting, Prof. Andrzej Mycielski, Institute of Physics, Polish Academy of Sciences, Al. Lotnikow 32/46, 02-668 Warsaw, Poland, Tel: +48228435626, Fax: +48228430926, Email: mycie@ifpan.edu.pl, Website: www.emrs.org/meetings/fall2004
September 13-17, 2004 , The 2 nd Biennial Symposium and Summer School on Nano and Giga Challenges in Microelectronics Research and Opportunities in Russia (NGCM2004), St. Petersburg, Russia Email: organizers@asdn.net
October 2004 , Eleventh APAM Topical Seminar on Frontiers in Functional Materials, China, details awaited.
November 16-18, 2004 , IUMRS ICA, Taiwan, details awaited.
November 22-25, 2004 , Asia Pacific EPR/ESR Symposium, Prof. S V Bhat, Department of Physics, Indian Institute of Science, Bangalore 560 012, India, Tel: 080-22932727 / 23600880, Fax: 080-23602602, email: apes04@physics.iisc.ernet.in, svbhat@physics.iisc.ernet.in, Website: www.physics.iisc.ernet.in/~apes04
November 25-26, 2004 , Workshop on Carbon Materials for Energy Applications, Dr. O P Bahl, Emeritus Scientist, National Physical Laboratory, Dr. K S Krishnan Road, New Delhi 110 012, Tel: 9811251200, Email: opbahl@mail.nplindia.ernet.in
December 17-19, 2004 , International conference on Recent Advances in Composite Materials, Dr. V K Srivastava, Convenor, ICRACM 2004, Department of Mechanical Engineering, Institute of Technology, Banaras Hindu University, Varanasi 221 005, Tel: 0542-2368157, Fax: 0542-2368174, Email: vijayks@banaras.ernet.in, vijayks@bhu.ac.in, Website: www.bhu.ac.in/notification/icracm1.htm
December 20-21, 2004 , International Conference on Electrochemical Power Systems, ICEPS-2, M Jayachandran, Secretary, Society for Advancement of Electrochemical Science and Technology (SAEST), CECRI Campus, Karaikudi 630 006, Tel: 04565-224198/227550-559, Fax: 04565-227713/227779, Email: saestkkd@yahoo.com/saest_india@rediffmail.com, Website: http://saest_ind.tripod.com

Members are requested to give information about the Conference / 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. 25,000/- are enrolled as Patron members by the Council of the MRSI.

Privileges of Patron Members

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

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