



MRSI Newsletter

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

Volume B 18 Number 1

January 2018

From the Editors' Desk

Organic solar or organic photovoltaic (OPV) cell technology has the potential to provide electricity cheaper than first- and second-generation solar technologies. Though OPV cells have achieved efficiencies over 13%, the efficiency limitations as well as long-term reliability remain significant barriers. OPV cells use molecular or polymeric absorbers and an electron acceptor. When it comes to acceptors, fullerene had dominated for over two decades. Recent days, non-fullerene acceptors with tunable absorption spectra and electron energy levels have drawn significant attention. The Review article published in Nature Materials [Nature Materials 17 119-128 (2018)] by J. Hou, O. Inganäs, R. H. Friend and F. Gao highlights the opportunities and challenges facing the development of non-fullerene acceptors for practical applications.

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 18, Number 1
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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

Materials Research Society of India
IISc Campus, Bangalore 560 012, India

Email: office@mrsi.org.in
nanda@mrc.iisc.ernet.in

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.

A. O. Surendranatha Engineers' Day - 2017

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 Ninth Annual General Body Meeting of MRSI will be held on **15th February 2018** at 6.15 PM. at SRM Hotel, Tiruchirappalli..

The Agenda for the Meeting is as follows:

- Welcome by the President, MRSI
- Confirmation of the Minutes of the 31st Council Meeting and action thereon
- Presentation of the Annual Report for 2017
- 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 2017
- Election of Honorary Members
- Venue for the 30th AGM, 33rd Council Meeting (2019) & 31st AGM, 34th Council Meeting (2020)
- Items from the members
- Any other matter

Kindly communicate the notice of the AGBM to all the members

29th ANNUAL GENERAL BODY MEETING OF MRSI AND NATIONAL SYMPOSIUM ON “ADVANCES IN FUNCTIONAL AND EXOTIC MATERIALS”

TENTATIVE PROGRAMME

*Jointly Organized by MRSI Trichy Chapter and Centre for High Pressure Research,
Bharathidasan University, Trichy*

FEBRUARY 14-16, 2018

SRM HOTEL, TIRUCHIRAPPALLI

FEBRUARY 14, 2018	FEBRUARY 15, 2018
Venue: SRM Hotel, Tiruchirappalli	Venue: SRM Hotel, Tiruchirappalli
08.00-9.30 MRSI-AGM Registration	08.00-09.00 Registration (continued)
09.30-10.30 Inaugural function	09.00-09.45 Invited Lecture 2
10.30-11.15 Keynote Address Dr. G K Dey, Former Director, BARC, Mumbai	Prof. G Bhaskaran, Institute of Mathematics, Sciences, Chennai
11.15-11.35 Special Lecture Prof. BVR Chowdari, NTU, Singapore	09.45-10.30 MRSI-ICSC Superconductivity and Materials Science Annual Prize Lecture 2
11.35-12.00 Tea	Prof. Ashok M Raichur, IISc, Bangalore <i>Towards development of better thera- peutic delivery systems using engineered nanostructured materials</i>
12.00-01.00 MRSI Silver Jubilee International Medal lecture Prof. Ram Seshadri, UCSB USA <i>DFT-based proxies for materials screening: Examples of magnetocalorics</i>	10.30-11.00 MRSI Medal Lecture 2 Dr. Durga Basak, IACS, Kolkata <i>Self-powered High Performance Photodetectors for Ultraviolet and Visible lights</i>
01.00-01.45 Lunch	11.00-11.30 Tea
01.45-03.00 Poster Session -I	11.30-12.15 Invited Lecture 3
03.00-03.45 Distinguished Materials Scientist of the year award lecture Prof. D N Bose, St. Xavier’s College, Kolkata	Prof. M S R Rao, IIT-Madras <i>Title awaited</i>
03.45-04.30 CNR Rao Prize Lecture in Advanced Materials Prof. A K Tyagi, BARC, Mumbai <i>Design of materials for harnessing radionuclides for various applications</i>	12.15-12.45 MRSI Medal Lecture 3 Prof. Jaydeep K Basu, IISc, Bangalore <i>Super-resolution STED Nanoscopy reveals nanoscale biomembrane dynamics and membrane-nanoparticle interactions</i>
04.30-04.45 Tea	12.45-01.15 MRSI Medal Lecture 4
04.45-05.30 Invited Lecture 1 Prof. Y.Uwatoko, Univ. of Tokyo, Japan <i>Title awaited</i>	Dr. Bipin Kumar Gupa, NPL, New Delhi <i>Printable Luminescent Security Ink Uncloable High Security Codes to Con- Counterfeiting: An Hour of Need for Nation</i>
05.30-06.15 MRSI-ICSC Superconductivity and Materials Science Annual Prize Lecture 1 Prof. Neeraj Khare, IIT-Delhi <i>Multifunctional Nanostructure Oxides and its composites for Various Applications</i>	01.15-02.00 Lunch
06.15-06.45 MRSI Medal Lecture 1 Prof. Ranjani Viswanatha, JNCASR, Bangalore <i>Physics and Chemistry of Spintronic Nanocrystals</i>	02.00-03.00 Poster Session-II
07.15-08.15 Cultural Programme	Theme Lectures (Magnetic Materials)
	03.00-03.45 Prof. Suryanarayanan (Retd), Univ. of Paris, France
	03.45-04.30 Prof. S M Yusuf, BARC, Mumbai
	04.30-05.00 Tea

05.00-06.00	G C Jain Lectures	10.00-10.30	MRSI Medal Lecture 7 Dr. A R James, DMRL, Hyderabad <i>Processing, properties and prototype development of some piezoceramics developed using novel synthesis routes.</i>
1.	Dr. Abhijit Bera, IACS, Kolkata <i>Band mapping across the junction of a heterostructure nanomaterials</i>	10.30-11.00	MRSI Medal Lecture 8 Prof. Josemon Jacob, IIT-Delhi <i>Design of Conjugated Organic Materials for Applications in LEDs and Photovoltaic</i>
2.	Dr. Kavita Yadav, IIT-Delhi <i>Capability of oxygen related defects in controlling the water wetting properties of metal oxide nanostructure surfaces</i>	11.00-11.30	Tea
3.	Dr. Nandini Bhandaru, IIT-Kanpur <i>Confinement induced ordering or polymer bilayer and blend thin films</i>	11.30-12.00	MRSI Medal Lecture 9 Prof. M R Anantharaman, CUSAT, Cochin <i>Porous 3D structures based on 2-D grapheme and hexagonal boron nitride for applications</i>
4.	Dr. Sachin Kumar B, Max-Planck Institut, Germany <i>Engineering Bioactive and Multifunctional grapheme polymer composites for bone tissue regeneration</i>	12.00-12.30	MRSI Medal Lecture 10 Prof. Shaibal Kanti Sarkar, IIT-Bombay <i>Effect of atmosphere and light on photoluminescence intensity fluctuations of hybrid perovskite microcrystals</i>
06.00-06.30	Students Project Talks	12.30-01.00	MRSI Medal Lecture 11 Shri. Neeraj Sinha, Office of the Principal Scientific Advisor, New Delhi <i>III-Nitride semiconductor heterostructure for functional devices</i>
1.	P Sivaprakash, Bharathidasan University, Trichy <i>Investigation on Magnetic Structure for transition metal difluorides of NiF₂</i>	01.00-02.00	Lunch
2.	M Kannan, Bharathidasan University, Trichy <i>Potential and indispensable high temperature superconductivity in novel Rare Earth Hydrides under higher pressure.</i>	02.00-02.30	MRSI Medal Lecture 12 Prof. S Arumugam, Bharathidasan University, Tiruchirappalli <i>Title awaited</i>
3.	G Swetha, Govt. Arts College, Kumbakonam <i>Synthesis and Temperature induced Structural Phase Transition in Schiff Base Soft Materials</i>	02.30-03.15	Invited Lecture 4 Dr. A. Thamizhavel, TIFR, Mumbai
06.30-07.30	Awards Distribution and Annual General Body Meeting	03.15-03.45	Tea
FEBRUARY 16, 2018		03.45-04.30	Invited Lecture 5 P S Anil Kumar, IISc, Bangalore
Venue : SRM Hotel, Tiruchirappalli		04.30-05.00	Theme Lectures (Energy) 1. G P Das, IACS, Kolkata
09.00-09.30	MRSI Medal Lecture 5 Prof. Ranjan Datta, JNCASR, Bangalore <i>Alloys and heterostructures of 2D TMDs</i>	05.00-05.30	2. Dr. A Pandurangan, Anna University, Chennai
09.30-10.00	MRSI Medal Lecture 6 Dr. Govind, NPL, New Delhi <i>A Roadmap from Growth to Fabrication of Devices using Nitride Semiconductors</i>	05.30-06.00	3.
		06.00-06.30	Concluding Function

For further details contact :

The Secretariat, 29th AGM of MRSI, Prof. S. Arumugam, Chairman & Secretary - MRSI Trichy Chapter, Coordinator - Centre for High Pressure Research, School of Physics, Bharathidasan University, Tiruchirappalli – 620 024. India

Email: sarumugam1963@yahoo.com
TEL:+91- 431- 2407118
Ph: 91 – 9500 910 310
FAX:+91- 431- 2407045

New Members

Enrolled between November 1, 2017 and January 31, 2018

Life Members

LMB2876
Amlan Dutta
S N Bose National Centre for Basic
Sciences
Block-JD, Sector-III, Salt Lake
Kolkata - 700106
Tel(Off) :033-23351313
Email :amlandutta2003@gmail.com

LMB2879
Deep Prakash
PMD, BARC
Vashi Complex, Turbhe
Navi Mumbai - 400703
Tel (Off) :022-27887183
Email :dprakash@barc.gov.in

LMB2882
Kannan Sanjeevi
Centre for Nanoscience and
Technology
Pondicherry University
Puducherry - 605014
Tel (Off) :0091-413-2654973
Email :para_kanna@yahoo.com

LMB2885
Hemalatha K V
4/290, Sri Lakshminagar
Mahalingapuram Post
Coimbatore Road, Pollachi - 642002
Tel (Off) :9655016733
Email :hemaac@gmail.com

LMB2888
Satish Piplode
House No. 114, Ward No. 12
Near Kamla Nehru Girls Hostel
Palsood Dist Barwani
Madhya Pradesh - 451447
Tel (Res) :9826835672
Email :satish.piplode@gmail.com

LMB2891
Esakki Muthu Sankaran
Department of Physics
Faculty of Arts and Sciences
Karpagam University, Eachanari
Coimbatore - 641021
Tel (Off) :9952410315
Email :sanrajson@yahoo.com

LMB2877
Mainak Saha
138/10, Debinibash Road road
PO. Motijheel, Dumdum
Kolkata - 700074
Tel(Off) :033-25606354
Email :mainaksaha1995@gmail.com

LMB2880
Ram Niwas Singh
HeaD, Mechanics of Materials
Section, Mechanical Metallurgy
Division, Mod Lab, BARC, Trombay,
Mumbai
Tel (Off) :022-25593817
Email :msingh@barc.gov.in

LMB2883
Joshy Joseph
Photosciences and Photonics Section,
Chemical Sciences and Technology
Division
CSIR-NIIST, Industrial Estate P.O.,
Thiruvananthapuram 695019
Tel (Off) :91-471-2515476
Email :joshyja@gmail.com

LMB2886
Suresh Kannan Balasingam
13A/30, Kalamman Kovil Street
Sellur (Near Market)
Madurai District - 625002
Tel (Off) :47-411445500
Email :suresh.unist@gmail.com

LMB2889
Yaishali Joshi
103, Maa Ganganagar, Sanawad Road,
Jaitapur Khargone Dist.
Khargone, - 451001
Tel (Res) :9039868332
Email vaishalijoshi03@hotmail.com

LMB2892
Uttam Kumar Ghorai
Dept of Industrial Chemistry and
Applied Chemisrty, Ramakrishna
Mission Vidyamandira, Behir math
Howrah - 711202
Tel (Off) :9732717457
Email :uttamindchem00@gmail.com

LMB2878
Jyotirmayee Mohanty
Radiation & Photochemistry
Division, Mod.Lab
Bhabha Atomic Research Centre,
Trombay, Mumbai - 400085
Tel (Off) :022-25593771
Email :jyotim@barc.gov.in

LMB2881
Grima Dhingra
Department of Physics, Maharshi
Dayanand University
Rohtak - 124001
Tel (Res) :7404220854
Email :grimadhingra@gmail.com

LMB2884
Vijayakumar C Nair
Photosciences and Photonics
Section
Chemical Sciences and Technology
Division, CSIR-NIIST, Industrial
Estate P.O, Thiruvananthapuram
Kerala - 695019
Tel (Off) :0471-2515 484
Email :cvk121@gmail.com

LMB2887
Vijay Bhooshan Kumar
Village: Sirsiya Bajar
Dist: Sitamarhi
Bihar - 843324
Tel (Off) :972-546687374
Email :vijaybhushan86@gmail.com

LMB2890
Girija E K
Department of Physics
Periyar University, Salem
Tamil Nadu - 636011
Tel (Off) :9444391733
Email :girijsaeaswaradas@gmail.com

LMB2893
Sakthi Dhandabani
E.R.K Arts and Science College
Erumiyampatti, Kokkarapatti PO.,
Pappireddipatti TK, Dharmapuri Dt
Tamil Nadu - 636905
Tel (Off) :9488588885
Email :rajsakthi84@gmail.com,

LMB2894
Dineshsingh Gulabsingh Thakur
Defence Institute of Advanced
Technology, Dept of Mechanical
Engineering, Girinagar
Pune - 411025
Tel (Off) :020-24304195
Email
:dineshsingh_thakur@yahoo.com

LMB2897
A M Ballamurugan
Department of Nanoscience and
Technology, Bharathiar University
Coimbatore - 641046
Tel (Off) :9443871751
Email :balamurugan@buc.edu.in

LMB2900
Krishna Jyothi Nadella
F2, Vaibhav Towers
Municipal Emplpyees colony
Pinnamaneni Polyclinic Road
Vijayawada - 520010
Tel (Off) :9491544730
Email :jyothinadella82@gmail.com

LMB2903
Jitander Kapoor
Room No. 129, Department of
Chemistry, National Institute of
Technology, Kurukshetra - 136119
Tel (Res) :9416550164
Email :jkkapoor11@gmail.com

LMB2906
Nabanita Pal
ICFAI TECH SCHOOL (ITS), IFHE,
156/157, Dontanpally
Shankarapally, Hyderabad - 501203
Tel (Res) :9874047737
Email :naba.p27@gmail.com

LMB2909
Suryanarayan Dash
Department of Physics and Astronomy
National Institute of Technology
Rourkela, - 769008
Tel (Off) :6612462733
Email :dashsurya@nitrrkl.ac.in

LMB2912
Anupreet Kaur
Assistant Professor
Basic and Applied Science department
Punjabiuni, Patiala - 147002
Tel (Res) :9501095705
Email :anupreetchem@pbi.ac.in

LMB2895
Venkateswara Rao Alaparathi
S/o A Chittiah, L E School Road,
Door no. 11-144, Kolluru (Post) &
(Mandal), Guntur (District)
Andhra Pradesh - 522324
Tel (Res) :9985093058
Email :avrtoavr@gmail.com

LMB2898
Diptonil Banerjee
M N Dastur School of Materials Science
and Engineering
Indian Institute of Engineering Science
and Technology
Howrah - 711103
Tel (Off) :033 26684561
Email :nilju82@gmail.com

LMB2901
Suresh G
No. 632, TNHB, Ayapakkam
Chennai - 600077
Tel (Res) :9444328611
Email :saisuresh1979@gmail.com

LMB2904
Sukriti Yadav
C/o Sanjay Yadav, Vill & Post -
Jagdishpur, Kasiya Road
Distt-Gorakhpur 273002
Tel (Off) :8896066428
Email :sukritiyadav@gmail.com

LMB2907
Vandana Yadav
9/2, Ashiswad Enclave
Ballapur Chowk, Chakrata Road
Dehradum - 248001
Tel (Res) :9557903531
Email :yadav.vandana1@gmail.com

LMB2910
Rahul Chandrakant Kambale
Department of Physics
Savitribai Phule Pune University
Pune - 411007
Tel (Res) :8600332257
Email :rckambale@gmail.com

LMB2913
Umadevi Veerbhadrappa Nerle
A/8, Astithva, First Floor,
Kalpvrukasha Apartment
Opp to BVB Engineering College,
Vidyanagar, Hubballi - 580031
Tel (Off) :9449344851
Email :nerleumal@gmail.com

LMB2896
Rajesh Cherukupalli
S/o C N Murthy, F No. 127, Indira
Enclave, Ayodhya Nagar
Vijayawada - 520003
Tel (Res) :8662538611
Email :rajesh8112@gmail.com

LMB2899
Remyamol T
SD, AMCD/MMG/MME, VSSC
Trivandrum - 695022
Tel (Off) :04712562586/3083
Email :remyamol@vssc.gov.in

LMB2902
Prabhakar Chetti
Room No. 132, Department of
Chemistry, National Institute of
Technology, Kurukshetra - 136119
Tel (Off) :01744-233331
Email :cheprh@gmail.com

LMB2905
Gopinath Shit
MMG, Indira Gandhi centre for
Atomic Research
Kalpakkam - 603102
Tel (Off) :044-27480500
Email :gopims@igcar.gov.in

LMB2908
Jobin Cyriac
Indian Institute of Space Science
and Technology , Valiamala
Thiruvananthapuram - 695547
Tel (Off) :4712568535
Email :cyriac.jobin@gmail.com

LMB2911
Nirmalendu Patra
Room No. M - 248H; MOD Lab -
C;
Bhabha Atomic Research Centre
Mumbai - 400085
Tel (Off) :033-25590343
Email :patranirmalendu@gmail.com

LMB2914
Somnath Chanda Roy
Room No. HSB 119B
Department of Physics
IIT, Madras
Chennai - 600036
Tel (Off) :044-22574886
Email :somnath@iitm.ac.in

LMB2915
Mamatha Kumari Murikinati
Department of Materials Science and
Nanotechnology, Yogi Vemana
University, Kadapa - 516003
Tel (Res) :8886577869
Email
mamatha@yogivemanauniversity.ac.in

LMB2916
Arun K Prasad
Nanomaterials Characterization and
sensors Section, Surface and
Nanoscience Division
Materials Science Group
IGCAR, Kalpakkam - 603102
Tel (Off) :044-27480500 Ext-22933
Email :akp@igcar.gov.in

LMB2917
Ramaseshan Rajagopalan
Surface Science Section
Surface and Nanoscience Division
Materials Science Group
IGCAR, Kalpakkam - 603102
Tel (Off) :044-27480500 Ext-22524
Email :seshan@igcar.gov.in

LMB2918
Raj Kumar
H No. 6-70/1, Bhavani Nagar
Post & Mdl: Damargidda
Dist: Mahabubnagar
Telangana - 509407
Tel (Res) :7022958357
Email :rk7410@gmail.com

LMB2919
Anuradha Subramanian
409, Tissue Engineering Lab
Centre for Nanotechnology &
Advanced Biomaterials
Anusandhan Kendra-1
Sastra Deemed University
Thanjavur - 613401
Email:anuradha@bioengg.sastra.edu

LMB2920
Soumyajit Mandal
CG24/CG30, Superconductivity
Lab, Department of Condensed
Matter Physics and Materials
Science TIFR, Homi Bhabha Road,
Colaba, Mumbai - 400005
Tel (Off) :(022) 2278 - 2475
Email
soumyajitmandal13@gmail.com

CALENDAR OF EVENTS

February 14-16, 2018, 29th Annual General Meeting of MRSI, SRM Hotel, Tiruchirapalli
Website : <http://www.mrsi2018.org>

February 23-25, 2018, International Conference on Recent Trends in Environment Sustainable
Development (RTESD-2018), Dr. Manish Kumar Gupta, VGU Jaipur, website :
<www.ieae.in/rtesd/index.php> ,
Phone : 91-9672786201

August 20-24, 2018, IUMRS-ICEM 2018, The International Conference on Electronic Materials,,
Daejeon Convention Center, Daejeon, Korea

September 16-20, 2018, XVII B-MRS Meeting, Traditional international meeting dedicated to recent
advances and perspectives in materials science and Technology, Natal Brazil

November 4-8, 2018, IUMRS-ICYRAM 2018, , Translating Science into Commercial Reality,
Adelaide, Australia

**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. 1,00,000- 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
General Secretary, MRSI
Materials Research Centre
Indian Institute of Science
Bangalore 560 012
Tel : 080-22932882
Email : office@mrsi.org.in