

**(19) Composites and
Light Metals and Alloys**

Co-chairs

Jayant Jain

Department of Applied Mechanics

Indian Institute of Technology

Hauz Khas

New Delhi 110 016

Email: jainjayan@gmail.com

Indrani Sen

Department of Metallurgical and Materials

Engineering

Indian Institute of Technology

Kharagpur 721 302

Email: indrani.sen@metal.iitkgp.ernet.in

(19) Composites and Light Metals and Alloys

DETAILED PROGRAMME

Monday : 12-12-2016

Session I : 10.15-11.45

10.15-10.45 Invited Talk (1)	<u>Sudhanshu Shekhar Singh</u> Nikhilesh Chawla Xianghui Xiao	ABS-Email-ICYRAM 4D Materials Science: Understanding Deformation Behavior Using In situ X-ray Tomography
10.45-11.00 Oral (1)	<u>V. Mohanavel</u> K. Rajan, P.V.Senthil S. Arul	ABS-133-ICYRAM Effect of AlN particles on the mechanical properties of Al-Zn-Mg-Cu/AlN composites
11.00-11.15 Oral (2)	<u>M. Sankar</u> G. Phanikumar V.V. Satya Prasad	ABS-287-ICYRAM Effect of Hf Additions on the Microstructure Evolution and Mechanical Properties of Niobium Silicide Based High Temperature Alloys
11.15-11.30 Oral (3)	<u>A. Zindal</u> J. Jain R. Prasad	ABS-343-ICYRAM The Development of Grain boundary Precipitate Free Zone in AZ80 Magnesium alloy
11.30-11.45 Oral (4)	<u>N.K. Kumar</u> J. Das R. Mitra	ABS-348-ICYRAM Effect of Zr addition on the oxidation behavior of spark plasma sintered multiphase Mo-Si-B alloy in the range of 700-1300 °C in dry and moist air

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Session II: 12.00-13.00

12.00-12.30 Invited Talk (2)	<u>K S Suresh</u> T. Kitashima, T. Hara Y. Yamabe-Mitarai	Effect of Si and Ge on the structure of α/β interface in near α titanium alloy
12.30-13.00 Invited Talk (3)	<u>Mitun Das</u>	In situ Titanium Matrix Composite: Near Net Shape Manufacturing

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Session III : 14.15-15.45

14.15-14.45 Invited Talk (4)	<u>S. Abhaya</u>	ABS-584-ICYRAM High entropy alloys: Evaluation of defect microstructure using positron annihilation spectroscopy
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14.45-15.00 Oral (5)	<u>K.Lokeshwaran</u> CH.V.S.Raju D.Venugopal , P.R.Srikanth, Sheela Singh , Md. Zaid	ABS-Email-ICYRAM Fabrication of High Entropy Alloy Composite by ball milling Phase analysis, Microstructure and Mechanical properties
15.00-15.15 Oral (6)	<u>Rohit R Shahi</u> Rajesh K Mishra	ABS-Email-ICYRAM Search for low density high corrosion resistance M-TiFeNiCr based nanocrystalline High entropy alloys (M=Mn, Co and Al)
15.15-15.45 Invited Talk (5)	<u>S Amrithapandian</u> Sruthi Mohan S.Balaji, C.David B.K.Panigrahi	ABS-Email-ICYRAM Radiation damage studies on nuclear structural materials- TEM investigations

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Session IV : 16.00-18.00

16.00-16.30 Invited Talk (6)	<u>Deepak Kumar</u>	ABS-Email-ICYRAM Alumina based coating on microstructurally controlled AZ91 Mg alloy
16.30-16.45 Oral (7)	<u>R. Sahoo</u> A.K. Chaubey T.K. Sahoo, B.B.Jha	ABS-Email-ICYRAM Impression creep behavior of Mg –Nd Magnesium alloy
16.45-17.00 Oral (8)	<u>S Sujith Kumar</u> Indrani Sen	ABS-Email-ICYRAM Deformation Characteristics of NiTi alloy
17.00-17.15 Oral (9)	<u>S.S.Satheesh Kumar</u> T.Raghu Pinaki P Bhattacharjee G. Appa Rao	ABS-669-ICYRAM Investigation of hot deformation behaviour of a hot isostatically processed nickel base superalloy using processing maps
17.15-17.30 Oral (10)	<u>Vinod Parmar</u> Dinesh Kalyanasundaram G. Vijaya Prakash	ABS-222-ICYRAM Transformation of medical grade titanium and titanium alloy during high power fiber laser machining
17.30-17.45 Oral (11)	<u>M Nikhil</u> Rahul Dhabale Vijaykumar S. Jatti	ABS-614-ICYRAM A Bio-Material: Mechanical Behaviour of Polyamide-Al ₂ O ₃ -TiO ₂
17.45-18.00 Oral (12)	<u>P. Ashwath</u> M. Anthony Xavier	ABS-620-ICYRAM Strength and Tribological Behavior of Ceramic Reinforced Aluminium Metal Matrix Composites Synthesized by Microwave Sintering.

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Session V : 14.15-15.45

14.15-14.45 Invited Talk (7)	<u>Koteswararao V. Rajulapati</u>	ABS-Email-ICYRAM
14.45-15.00 Oral (13)	<u>Basanti Ekka</u> Soumitra R Nayak Priyabrat Dash Raj Kishore Patel	ABS-47-ICYRAM Novel sonochemical synthesis of hydroxyapatite-zirconia nanocomposite as a potential catalyst for degradation of phenol and its derivatives
15.00-15.15 Oral (14)	<u>Simin He</u> Guangcheng Yang Zhiqiang Qiao Jinshan Li	ABS-89-ICYRAM Control Synthesis of Al/MO Composite Materials with Special Structure by Nanosphere Lithography or hydrothermal process
15.15-15.30 Oral (15)	<u>J. Chen</u> P. Wu, B. Huang, G. C. Yang , H. Huang	ABS-90-ICYRAM Three-Dimensional Hierarchically Ordered Porous Carbon with High Catalytic Performance in the Thermal Decomposition of CL-20
15.30-15.45 Oral (16)	<u>Rajnish Kumara</u> S A R Hashmi Subhash Nimanpureb Ajay Naikb	ABS-388-ICYRAM Influence of fibre length on kenaf epoxy composites

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Session VI : 16.00-18.00

16.00-16.15 Oral (17)	<u>Deepak Sharma</u> Praveen Kumar	ABS-485-ICYRAM Graphene Nano-Sheet Cu Embedded 2-Phase In-Cu Solders as Next Generation Thermal Interface Materials
16.15-16.30 Oral (18)	<u>L. Venkatesh</u> Manish Tak Ravi C. Gundakaram I. Samajdar	ABS-548-ICYRAM Microstructure and property correlation in laser clad chromium carbide- Ni rich alloy metal matrix composite
16.30-16.45 Oral (19)	<u>Naveen Kumar Veldurthi</u> Raju Reddy Jitta, G. Ravi, Ravinder Guje, Radha Velchuri, P. Venkataswamy, M. Vithal	ABS-636-ICYRAM Fabrication and Visible-light induced Photocatalytic Activity of NaNbO ₃ Oriented Composite Photocatalyst Coupled with N-NaNbO ₃ and V-NaNbO ₃

16.45-17.00 Oral (20)	<u>C.Suresh Kumar</u>	ABS-676-ICYRAM Effect of fiber orientation in impact damage resistance of glass/epoxy composite laminates under repeated indentation with acoustic emission monitoring
17.00-17.15 Oral (21)	<u>M J Sandeep</u> G C Manjunath Patel Ganesh R. Chate	ABS-734-ICYRAM Effect of Moulding Sand Additives of Chemically bonded Sand Mould System on Sand Mould Properties
17.15-17.30 Oral (22)	<u>K M Shivakumar</u> G C Manjunath Patel Ganesh R. Chate M J Sandeep	ABS-748-ICYRAM Effect of Ecological Moulding Sand Additives on Mould hardness and Permeability of Chemical bonded Sand Mould System
17.30-17.45 Oral (23)	<u>K.Dileep Kumar</u> M. S. Ravi Teja	ABS-Email-ICYRAM Free Vibration Analysis of Circular Composite Plate using Bessel Functions
17.45-18.00 Oral (24)	<u>K.Dileep Kumar</u> V.V Subba Rao G. Jaya Sai Ram	ABS-Email-ICYRAM Macroscopic Damping Characteristics of Laminated Composites
18.00-18.15 Oral (25)	<u>I.Soibam</u> N. Aruna Devi A. Kiranjit Singh A. Devadatta. Mani	ABS-297-ICYRAM Investigation on the structural dielectric and magnetic properties of conventional and microwave sintered $\text{Li}_0.25\text{Cu}_0.3\text{Zn}_0.2\text{Fe}_2.25\text{O}_4$ ferrite.

Poster Session :

Tuesday : 13-12-2016 : Time : 10.15-13.15 hrs

19-Poster-01	<u>Harish Sharma Akkera</u> Madhukar Poloju N. Nanda Kumar Reddy	ABS-31-ICYRAM Fabrication of cast aluminium-silicon (Al-Si) and aluminium- magnesium (Al-Mg) alloys and their properties
19-Poster-02	S.Shantharama Patil	ABS-60-ICYRAM Fiber Reinforced Composites
19-Poster-03	L Satish K. Achary Aniket Kumar, Lipeeka Rout Nilakantha Tripathy Priyabrat Dash	ABS-109-ICYRAM Design of Graphene Oxide-CuFe ₂ O ₄ Nanocomposite as a Highly Sensitive and Selective Room Temperature Ammonia Gas Sensor
19-Poster-04	Harish K. Choudhary Balaram Sahoo	ABS-139-ICYRAM Electromagnetic shielding properties of composite of MWCNT with PANI coated MnO ₂ nanorods

19-Poster-05	Jyothi M S, Vignesh Nayak Mahesh Padaki, R. Geetha Balakrishna Khantong Soontarapa	ABS-171-ICYRAM Induction of Charge and Hydrophilicity in Composite Membrane for Flux Enhanced Cr Rejection
19-Poster-06	V. Keshav S.N. Patel	ABS-181-ICYRAM Dynamic Buckling of Composite Plates Subjected to In-Plane Compression
19-Poster-07	Vineet Kumar Mall Rajiv Prakash	ABS-192-ICYRAM Modified MWCNT/AgNPs Nanocomposites with Molecularly Imprinted Polymer
19-Poster-08	Aniket Kumar Priyabrat Dash	ABS-198-ICYRAM Ternary Graphene Oxide (GO) -CuFe ₂ O ₄ -ZnO Nanocomposite: A Magnetically Recyclable Hybrid for Photo degradation of Organic Pollutant under Solar Light
19-Poster-09	Megha Sahu Lakshmi Narashimhan Ramana, Om Prakash Ashok M. Raichur	ABS-256-ICYRAM 2D Organic and Inorganic Nanomaterials as Toughening Agents for Epoxy Polymers
19-Poster-10	Nimai Bhandary Pravin P. Ingole Suddhasatwa Basu	ABS-261-ICYRAM In-situ Solid State Synthesis of AgNi/g-C ₃ N ₄ nanocomposite for Efficient Photoelectrochemical Water Splitting
19-Poster-11	M. Sankar , Shishir V.V. Satya Prasad R.G.Baligheid K.V.Mirji	ABS-286-ICYRAM Microstructure and Room temperature Mechanical Properties of Nb-10W and Nb-10W-2.5Zr Alloys Produced by Electron Beam Melting Process
19-Poster-12	Naveen Chandrasekaran Saravana Kumar Muthusamy	ABS-322-ICYRAM Binder-less, free-standing porous interconnects of Ni-Fe alloy decorated reduced graphene oxide for oxygen evolution reaction
19-Poster-13	Shreyasi Chattopadhyay Sandipan Maiti, Indranee Das Sourindra Mahanty Goutam De	ABS-349-ICYRAM Ordered Mesoporous electrospun TiO ₂ -rGO nanofibers:Efficient Anode Material for Lithium Ion Batteries
19-Poster-14	J.V. Meshram V. B. Koli S.H. Pawar	ABS-386-ICYRAM Synthesis and Characterization of PVA-Gelatin/ZnO nanocomposites for antibacterial activity

19-Poster-15	Priyanka. P. Patil Jagruiti. V. Meshram Shivaji. H. Pawar	ABS-387-ICYRAM Preparation and Characterization of Antibacterial Silk Fibroin/Polyvinyl Alcohol/ZnO Nanocomposite Film
19-Poster-16	L Selvarajan, R. Aravind S. Sankar , R. Dineshkumar P. Mouri	ABS-493-ICYRAM Experimental Analysis of EN 19 Alloy Material on EDM for Improving Geometrical Errors Using Copper Pentagon Shaped Electrode
19-Poster-17	Ankit Yadav Rajeev Kumar Balaram Sahoo	ABS-508-ICYRAM Corrosion Behavior Study of 4-aminobenzoic acid (PABA) Grafted Carbonyl Iron Particles (Coated with Graphene Oxide) in Salt Water
19-Poster-18	Vikram Singh Subhasis D. Adhikary Aarti Tiwari Debaprasad Mandaland Tharamani C. Nagaiah	ABS-520-ICYRAM Sustainable Carbon nanotube-polyoxometalate composite catalyst for HCl electrolysis
19-Poster-19	P.Gopal V.K.Bupesh Raja K. Logesh	ABS-545-ICYRAM Fracture Topography Investigation of Cross Stitched and Unstitched Jute Fiber with Coconut Shell Powder/Epoxy Laminates
19-Poster-20	V. Kishore Kumar S.Palanisamy S. Yogesh Sriram CB. Vaishak	ABS-616-ICYRAM Design and Analysis of Crankshaft Using Al-Al ₂ O ₃ Composite Material
19-Poster-21	A.Rajadurai S.Lenin raj	ABS-639-ICYRAM Influence of AWJM Time on the quality of hole making of aluminum 5083
19-Poster-22	Muktikanta Panigrahi Radha Raman Dash Ratan Indu Ganguly	ABS-711-ICYRAM Development of Cured Pond Ash (PA)/High Carbon Ferrochrome (HCFC) slag Geopolymer (GP) Products for heavy construction applications
19-Poster-23	S.Palanisamy H.V.Pavan, K.Rahul M.B.Sandeep	ABS-720-ICYRAM Design and Analysis of Connecting Rod Using Al-SiC Composite Material
19-Poster-24	Gaurang A. Patel Sagar R. Chokshi	ABS-766-ICYRAM Tribological Characterization and Empirical Modeling of Citrus-Limetta Peel Reinforced Polyester Composite Using Taguchi Approach

19-Poster-25	Swamini Chopra Kavita Deshmukh Abhay Deshmukh, Shilpa Pande , Dilip Peshwe	ABS-770-ICYRAM <i>Inflorescence</i> of MWCNT/PBT Nano-composites during Tensile Fracture and Theoretical Prediction of its Elastic Modulus
19-Poster-26	K.Dileep Kumar A.Mahesh kumar	ABS-Email-ICYRAM Microscopic Effect of Fiber Strand on Damping Characteristics of Hybrid Composites
19-Poster-27	H G Prashantha Kumar M. Anthony Xavior	ABS-Email-ICYRAM Mechanical and Tribological studies on Al 7075 – Graphene/CNT Nanocomposites
19-Poster-28	Satyajit Das Karthikeyan Kandan Vikram Deshpande	ABS-Email-ICYRAM Compression & Indentation of 3D orthogonal carbon fiber epoxy composite: Experiment and Modelling