



National Seminar on “Propelling Innovations in Glass and Ceramics for Atmanirbhar Bharat”

11-12 December 2020

Organised by: Indian Ceramic Society, Kolkata Chapter & CSIR-CGCRI, Kolkata

Technical Programme

Day 1: 11 December, 2020 (Friday)		
Time (hrs)	Event	
Technical Session-1: Glass & Glass-Ceramics		
9:30-10:00	IL-1	<i>Recent Trends in Solar Glass</i> Mr. Pradeep Kheruka, Borosil Limited
10:00-10:15	CL-01	<i>Study of Short-range Structure in Sodalime Silicate Glass from Atomic Pair Distribution Function (PDF) & Near Edge X-ray Absorption Fine Structure (NEXAFS)</i> Ripan K. Biswas, CSIR-CGCRI, Kolkata
10:15-10:30	CL-02	<i>Transparent Ferroelectric Glass-ceramics: Synthesis, Properties and Applications</i> Anirban Chakrabarti, CSIR-CGCRI, Kolkata
10:30-10:45	CL-03	<i>Development of Novel Bioactive Glasses with Superior Thermal Stability and Antibacterial Properties</i> Sakthi Prasad, CSIR-CGCRI, Kolkata
10:45-11:00	CL-04	<i>Comparing the Effect of Melting Times on Volatility Loss of Volatile Ingredient in Conventional and Microwave Heating</i> Yudhisthir Mandal, CSIR-CGCRI, Kolkata
11:00-11:15	CL-05	<i>Utilization of Waste Glass Generated in Industries: An Approach towards Green Manufacturing and Reduction of Environmental Stress</i> Soumya Mukherjee, Kazi Nazrul University, Asansol
11:15-11:30	Tea Break	
Technical Session -2: Refractory		
11:30-12:00	IL- 2	<i>Research and Innovation: Refractory Industry</i> Dr. Atanu Ranjan Pal, Tata Steel
12:00-12:15	CL-06	<i>Effect of Different Additives on the in-situ Spinelisation and Grain Growth of Magnesia-spinel Brick</i> Avishek Mitra, Dalmia OCL
12:15-12:30	CL-07	<i>Studies on Salem Magnesite In Terms of Phase Modification and Beneficiation</i> Chandrima Ghosh, CSIR-CGCRI, Kolkata
12:30-12:45	CL-08	<i>Reaction Sintering of Alumina-rich Magnesium Aluminate Spinel: Effect of Additives</i> Somnath Sinhamahapatra, CSIR-CGCRI, Kolkata
12:45-13:00	CL-09	<i>Influence of Ladle Operating Parameters on Lining Performance of Steel Ladle at ISP</i> Abdur Rouf, SAIL
13:00-13:15	CL-10	<i>Mullite Based Refractory Pot for High Lead Containing Glass Melting</i> Sourav Nag, CSIR-CGCRI, Kolkata
13:15-13:30	CL-11	<i>Utilization of Spent Ceramic Shells of Investment Casting Process for Making Crucibles for Metallurgical Operations”</i> Parvesh Agrawal, CSIR-CGCRI, Naroda
13:30-14:30	Lunch Break	
Technical Session -3: Engineering Ceramics		
14:30-15:00	IL-3	<i>Ultra High Temperature Ceramics (UHTC) for Hypersonic Space Vehicles: Opportunities and Challenges</i> Prof. Bikramjit Basu, IISc, Bangalore
15:00-15:15	CL-12	<i>Effect of Nano and Micron Boron Nitride on Mechanical and Dielectric Properties of BN/SiAlON Ceramics</i> Chandrakala D, ARCI, Hyderabad
15:15-15:30	CL-13	<i>Indentation Size Effect in Nanoindentation Behaviour of TiO₂ Doped Alumina</i> Payel Maiti, CSIR-CGCRI, Kolkata
15:30-15:45	CL-14	<i>Pressure Casting and Mechanical Characterization Al₂O₃ Ceramics</i> P. Raju, ARCI, Hyderabad & NIT Warangal
15:45-16:00	CL-15	<i>High Temperature Oxidation Behavior of CVD SiC Coated C/C-SiC Hybrid Composite Tubes Processed through Si-infiltration</i> Mubina Shaik, ARCI, Hyderabad & NIT Warangal
16:00-16:15	CL-16	<i>Tribo-mechanical Behaviour of Alumina Ceramic in Presence of Sintering Aids</i> Partha Haldar, GCECT, Kolkata
16:15-16:30	CL-17	<i>Premium Alumina Solutions for Versatile High Performance Ceramic Applications</i> Shankha Chatterjee, Almatris Alumina Pvt. Ltd.
16:30-16:45	Tea Break	
Technical Session -4: Functional Ceramics		
16:45-17:00	CL-18	<i>Study on the Novel Capacitive Moisture Sensing Properties of Microporous Copper Chromite Thick Film</i> Sagnik Das, CSIR-CGCRI, Kolkata
17:00-17:15	CL-19	<i>Fabrication of rGO Decorated ZnO-SnO₂ Sensors for Acetone Sensing Application</i> Sovandeb Sen, CSIR-CGCRI, Kolkata
17:15-17:30	CL-20	<i>Enhanced Dielectric, Ferroelectric, Piezoelectric Properties of Ga Doped ZnO/PVDF-HFP Nanocomposites</i> Shewli Pratihari, CSIR-CGCRI, Kolkata
17:30-17:45	CL-21	<i>Effect of Strontium Addition on The Crystal Structure, Grain Size and Dielectric Properties of BaTiO₃ Ceramics</i> Sourav Maity, CSIR-CGCRI, Kolkata
17:45-18:00	CL-22	<i>Correlation Between Structural and Mechanical Characterization of Sub-grade Soil</i> Sandeepan Saha, Greater Kolkata College of Engineering and Management, JIS Group, Kolkata
18:00-18:15	CL-23	<i>Mechanical Characteristics and Feasibility Analysis of Zn- SiC Composite as a Biodegradable orthopedic Implant</i> Amrendra Rai, IIT(BHU), Varanasi



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Technical Programme

Day 2: 12 December, 2020 (Saturday)

Time (hrs)	Event	
Technical Session-5: Ceramics		
10:00-10:15	CL-24	<i>Reviving the High Voltage Porcelain Insulator Industries with Technological Innovations</i> Amiya P. Goswami, Allied Ceramics (P) Ltd.
10:15-10:30	CL-25	<i>Evolution of Cordierite Phase in Talc-Kaolin-Alumina System</i> Kausik Dana, CSIR-CGCRI, Kolkata
10:30-10:45	CL-26	<i>A Study on Reaction Sintering of La₂Ti₂O₇ Ceramics</i> K. R. Kambale, College of Engineering Pune
10:45-11:00	CL-27	<i>Technological Properties of Red Clay Based Vitreous Sanitary Ware Body and Matching Opaque Glaze</i> Asha Anil, CSIR-CGCRI, Naroda
11:00-11:15	CL-28	<i>Compressive Strength of Geopolymers Prepared from Metakaolin and Terracotta Waste</i> Madhuchhanda Sarkar, CSIR-CGCRI, Kolkata
11:15-11:30 Tea Break		
Technical Session 6: Functional Ceramics - 2		
11:30-12:00	IL-4	<i>Ceramics for Fifth Generation (5G) Wireless Communication Technology</i> Prof. Dibakar Das, University of Hyderabad
12:00-12:15	CL-29	<i>Effect of Ba Doping on the Structural, Magnetic and Electrical Properties of BiFeO₃ Nanoparticles</i> Abhishek Sasmal, CSIR-CGCRI, Kolkata
12:15-12:30	CL-30	<i>Hierarchical Porous TiO₂-ZnO Inverse Opal Heterojunction Film with Improved Photoelectrochemical Performance</i> Hasmat Khan, CSIR-CGCRI, Kolkata
12:30-12:45	CL-31	<i>TiO₂-ZrO₂ Based Transparent Hard Nanocomposite Coatings Useful for Energy Saving Application</i> Samar Kumar Medda, CSIR-CGCRI, Kolkata
12:45-13:00	CL-32	<i>Study of Mechanical and Corrosion Characteristics of Mg₃Al₂Zn_{0.6}Ca-1393 Bioactive Glass Composite</i> Pooja Rai, IIT (BHU), Varanasi
13:00-13:15	CL-33	<i>Development of Antireflective and Hydrophobic Coatings on Different Glass Substrates for Various Applications</i> Srikrishna Manna, CSIR-CGCRI, Kolkata
13:15-13:30	CL-34	<i>Metal Oxide based High Reflection (HR) Coating with Performance at 1054 nm for Optics of Nd : Phosphate Laser System</i> Susmita Podder, CSIR-CGCRI, Kolkata
13:30-14:30 Lunch Break		
14:30-16:45 Technical Session 7: Energy and Environment		
14:30-14:45	CL-35	<i>Fluoride Removal Studies in Portable Water using gamma-Alumina Coated 3D Printed Ceramic Honeycomb Substrates</i> S. Mamatha, ARCI, Hyderabad
14:45-15:00	CL-36	<i>Study on the Catalytic Activity of Zeolite-13X and Sn Impregnated Zeolite-13X on Esterification Reaction</i> Debkishna Dey, University of Calcutta
15:00-15:15	CL-37	<i>Nanocrystalline La-Sr-Co-Fe-O-based Ceramic Air Electrode for Solid Oxide Cell: Future Sunrise for Hydrogen Economy in India</i> Shoroshi Dey, CSIR-CGCRI, Kolkata
15:15-15:30	CL-38	<i>Synthesis and Characterization of Lithia (Li₂O) Stabilized Sodium Beta Alumina Solid Electrolytes</i> S.P. Butee, College of Engineering Pune
15:30-15:45	CL-39	<i>Regeneration and Recycling of Hydrogen Titanate Nanotubes as Dye Adsorbent via Ozone and Ultrasound Cavitation Techniques</i> M. M. Shahansha, CSIR-NIIST
15:45-16:00	CL-40	<i>Defect Engineered Visibly Active TiO₂ for H₂ Generation (Co-catalyst Free)</i> Tatagata Sardar, Visvesvaraya Technological University, Karnataka
16:00-16:15	CL-41	<i>Emerging Contaminant ‘Glyphosate Herbicide’ Removal Using Biosorption Process and Hazardous Sludge Management in Phosphate Glass Formulation</i> Lata Ramrakhiani, CSIR-CGCRI, Kolkata
16:15-16:30	CL-42	<i>Development of Hydrophobic Ceramic Membranes for CO₂ Dispersion in Algal Membrane Photobioreactor</i> Anirban Ray, CSIR-CGCRI, Kolkata
16:30-16:45	CL-43	<i>Ceramic-polymer Composite Membranes: In-situ Generated Nanoparticle Modification and Application in Water Treatment</i> Sanjukta Roy, CSIR-CGCRI, Kolkata
16:45-17:00	Tea Break	
17:00	Valedictory Session	