

Amit Das

Scientist-B

Contact Information:

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Areas of Research Interest: Thermal Barrier Coatings (TBCs), Solid Oxide Fuel Cells (SOFCs), Metal-Supported Solid Oxide Fuel Cell (MS-SOFC), Electrochemical Impedance Spectroscopy (EIS), X-Ray Diffraction (XRD)-Rietveld Refinement, Scanning Electron Microscope (SEM)-Micrographs Analysis and Image Processing.

Academic Qualification:

- **PhD** in Materials Science and Engineering, IIT Kanpur (2015-Ongoing).
- **M.Tech** in Materials Science and Engineering, IIT Kanpur.
- **B. Sc** and **M. Sc** in Industrial Chemistry and Applied Chemistry, Ramakrishna Mission Vidyamandira, Belur Math (University of Calcutta).

Peer-Reviewed Publications:

1. Amit Das, Sunil Kumar, Sandeep Kumar, Shobit Omar, “High Performance $SrFe_{0.1}Mo_{0.9}O_{2-\delta}$ -Based Composite for the Anode Application in Solid Oxide Fuel Cells”, “**Electrochimica Acta**”, 354 (2020), 136759. **Impact Factor: 6.215**
2. Arunkumar Pandiyan, Chaesung Lim, Aarthi Uthayakumar, Vinothkumar Ganesan, Wonjong Yu, Michail Tsampas, Amit Das, Shobit Omar, Jeong Woo Han, Suresh Babu Krishna Moorthy, and Suk-Won Cha, “Validation of Defect Association Energy on Modulating Oxygen Ionic Conductivity in Low Temperature Solid Oxide Fuel Cell” “**Journal of Power Sources**”, 480 (2020), 229106, **Impact Factor: 8.247**
3. Rashmi Agarwal, Amit Das, Shobit Omar, “High 3D Proton Conductivity of a 2D Zn (II) Metal Organic Framework Synthesized via Water-Assisted Single-Crystal to Single-Crystal Phase Transformation”, “**Journal of Physical Chemistry C**”, 124 (2020), 18901-18910. **Impact Factor: 4.189**
4. Rahul Bhattacharyya, Soumitra Das, Amit Das, Shobit Omar, “Effect of Sintering Temperature on the Microstructure and Conductivity of $Na_{0.54}Bi_{0.46}Ti_{0.99}Mg_{0.01}O_{3-\delta}$ ”, “**Solid State Ionics**”, 2020, Under Review, **Impact Factor: 3.107**
5. Preeti Bajpai, Amit Das, Prajina Bhattacharya, Shimjith Madayi, Kaustubh Kulkarni, Shobit Omar, “Hot Corrosion of Stabilized Zirconia Thermal Barrier Coating and the Role of Mg-Inhibitor”, “**Journal of American Ceramic Society**” **98 (8), 2655-2651, 2015. Impact Factor: 3.094**