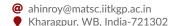
AHIN ROY

Electron microscopist, Materials chemist & Nanomaterials simulist



EMPLOYMENT

Assistant Professor

Materials Science Centre, IIT Kharagpur, WB, India

- Kharagpur, WB, India
- Synthesis, simulation and electron microscopy of nanomaterials

Postdoctoral experience

Research Fellow, Trinity College, Dublin; Visiting Scientist, IISc Bangalore & JSPS postdoc, Kyushu University, Japan

- **Sep 2015 Oct 2021**
- Dublin, Bangalore & Fukuoka
- Synthesis, atomic-scale STEM and simulation of oxide & 2D materials

PROJECTS

Atomic-scale Interrogation and Engineering of Inorganic Heterostructure Catalysts for CO Oxidation

PI, Relevant Research Project, Board of Research in Nuclear Sciences (BRNS), India

2024 - 2027

■ IIT Kharagpur

Atomic-scale Electron Microscopic Interrogation and Electronic Structure Simulations of Heterostructure Catalysts for CO Oxidation (AtomCAT)

PI, Faculty Startup Research Grant, SRIC, IIT Kharagpur

2023 - 2025

■ IIT Kharagpur

Atomic-scale Structural and Electronic Interrogation of Symmetry-broken Noble Metal Nanostructures for Oxygen Reduction Reaction

PI, Startup Research Grant (SRG), Science and Engineering Research Board (SERB), India

2022 - 2024

IIT Kharagpur

Three-dimensional nanoanalyses of catalytic nanocomposite by electron tomography

Fellow, Japan Society for Promotion of Science, MEXT, Japan

2015 - 2017

Kyushu University, Japan

Engineering Photoluminescence of WS₂ through Doping and Electrical Biasing

co-PI, DST, India & JSPS, MEXT, Japan

2019 - 2021

■ IISc Bangalore, Kyushu University

AWARDS

Best Poster Award
EMSI Meeting, Mahabalipuram, Chennai - 2017

Young Scientist Award in Physics
Dr. K. V. Rao Scientific Society - 2015

JSPS Postdoctoral Fellowship JSPS, MEXT, Japan - 2015

Gold Award, Shell India Computational Talent Prize
Shell India - 2014

Science Communication Scholarship
RSC & Imperial College, London - 2012

Integrated Ph. D Fellowship
IISc Bangalore - 2009

Certificate of Distinction
International Australian Mathematics
Olympiad - 2002

SELECTED PAPERS

Chem. Mater., 36, 5741-5752 (2024)

Adv. Funct. Mater., 2402103 (2024)

Adv. Funct. Mater., 2214883 (2023)

Adv. Energy Mater., 2203747 (2023)

Adv. Energy Mater., 2203013 (2022)

Nat. Electron., 4, 893-905 (2021)

Nat. Nanotechnol., 16, 592–598 (2021)

ACS Nano, 14, 13418-13432 (2020)

ACS Nano, 14, 5909-5916 (2020)

ACS Appl. Mater. Interfaces, 9, 19462–19469 (2017)

J. Phys. Chem. C, 118, 18676–18682 (2014)

Nano Lett., 14, 4859-4866 (2014)