

[Name Redacted]

METALLURGY/MATERIALS, CERAMIC ENGINEERING PROFESSIONAL

SUMMARY OF SKILLS

Expert in Ceramic technology and Materials Engineering with over 3 years of experience in the research and development of glass and ceramic materials to meet specific industry requirements. Post-graduate specialization in Alloy technology with extensive hands-on experience in developing corrosion-resistant alumina-chrome refractory through sintering. Strong knowledge of microstructure analysis (SEM, XRD) and experience working with SAP system.

PROFESSIONAL EXPERIENCE

November 2009-June 2010: Research Associate, [company redacted], Kolkata, India.

Project: **Development of glass-contact high-corrosion-resistant alumina-chrome refractory suitable for immobilization of high molecular weight ions**

June 2007-October 2009: Research Engineer, [company redacted], Bahadurgarh, Haryana, India.

Project: **Testing of various raw materials, glazes, frits, and slips for appropriate chemical composition, defects and quality**

EDUCATION AND TRAINING

PHD (Materials Engineering), (July 2014 - present)

Indian Institute of Technology (IIT), Madras, Chennai, India, 1st Class. CGPA-7.85(10 Scale).

Areas of Research:

- Synthesis of novel core shell ceramic nanocomposites materials and microstructure,
- Functional properties by photoluminescence spectroscopy, Raman spectroscopy, ftir spectroscopy and Diffuse Reflectance spectroscopy.
- Photovoltaic and photocatalytic properties of core shell nanomaterial.

Master of Technology (Materials Engineering), 2014

Indian Institute of Technology, (IIT-BHU, Varanasi), India, 1st Class. CGPA-8.2 (10 Scale).

M.Tech project: Tensile and low cycle fatigue behavior of Cr-Mo steel.

Summary of project work:

- Microstructure study of advanced structural materials (Cr-Mo steel) by optical microscopy, SEM, TEM etc.
- Study of tensile and low cycle fatigue behavior at different temperatures and different strain rates.
- Study of creep fatigue interaction behavior by doing low cycle fatigue with hold time at higher temperature.
- Microstructure analysis in detail of tensile and fatigue fractured specimen.

Bachelor of Technology (Ceramic Technology), 2007

Govt. College of Engg and Ceramic Technology (West Bengal University of Technology), India, 1st Class.

CGPA-7.86 (10 Scale).

B.Tech project: Study of sol gel preparation of alumina Zirconia composites.

12th, 2003

W.B.C.H.S.E; 1st Class

10th, 2001

W.B.B.S.E; 1st Class

Skills:

- Scanning Electron Microscope (SEM).
- Transmission Electron Microscope (TEM).
- Hands on experience on Differential Thermal Analysis(DTA) Raman Spectroscopy, ftir spectroscopy, Diffuse Reflectance Spectroscopy, X Ray Diffraction (XRD).
- Having knowledge of C language, Microsoft Office etc.
- Coordinating different workshops held at IIT Madras, India.

Conferences:

- Applied Nanotechnology and Nanoscience International Conference (ANNIC 2018), Berlin, Germany.

Poster: Synthesis and Characterization of TiO₂/SnS₂ core shell nanostructures.

- International Conference on Advanced Nanomaterial and Nanotechnology (ICANN-2017), Indian Institute of Technology (Guwahati), India.
- National Metallurgists Day (NMD-2014), Indian Institute of Technology (Banaras Hindu University), Varanasi, India.

Professional Certification: Lean six sigma (Green belt).

Linguistic Proficiency: English, Bengali, Hindi.

Date of birth: 8th August, 1985