

Rajasekhar Talla

Portland, Oregon
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Objective:

Seeking a Full-time position in an industrial firm focused on processing, research, development, characterization of metals and alloys.

Education:

MS., Material Science Engineering, GPA: 3.7
Portland State University, Portland, Oregon

BS., Metallurgy and Materials Technology, GPA: 3.5
Jawaharlal Nehru Technological University (JNTU),
Hyderabad, India

Professional Experience:

Portland State University, Portland, Oregon

May 2009 - Present

Research Associate

- ◆ Conduct materials testing and analysis using advanced test and imaging systems
 - Operate Instron servo hydraulic computerized test systems, impact toughness test systems
 - Coordinate metallurgical evaluation and mechanical testing for different materials
 - Perform mechanical and metallurgical evaluation of steels, aluminum, nickel and titanium based alloys including tensile testing, fracture testing, impact toughness testing, hardness testing, weld evaluation and microanalysis using Scanning Electron Microscope (SEM), Energy dispersive spectroscopy (EDS) and Transmission Electron microscope (TEM)
 - Comprehensive metallographic sample preparation including sectioning, polishing and etching
- ◆ Assist with training students in laboratory techniques and work with other lab researchers to facilitate overall research progress
- ◆ Write technical reports and presentations of ongoing research results
- ◆ Write laboratory procedures for all the equipments in lab
- ◆ Document all results and findings for every project

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Professional Experience (continued)

Graduate Research Assistant,
September 2007- April 2009

- ◆ Perform physical and chemical testing in the metallurgical lab
- ◆ Perform failure and corrosion analysis
 - Perform mechanical and metallurgical testing of martensitic and precipitation hardened steels (300M, Carpenter tech custom 465 and Ferrium S-53 alloys)
 - Operate scanning electron microscope (SEM), transmission electron microscope (TEM), tensile and fatigue testing machine (INSTRON), Rockwell and Brinell hardness tester, Micro hardness tester.
- ◆ Responsible for performing stress corrosion analysis using Rising step load method per ASTM standards

Teaching Assistant,

April 2008-December 2008

Instruct a 70 student laboratory course demonstrating heat treating, cutting, mounting, polishing and metallographic examination of various alloys using optical microscope and micro hardness testing.

Mishra Dhatu Nigam Limited, India

December 2005- September 2006

Materials Engineer

Assist in quality control inspections to meet industry specifications:

- ◆ Conduct chemical analysis of maraging steel specimen from vacuum induction melt pool using Visual Spectrophotometer.
- ◆ Adjust the chemical compositions of melt as per the customer requirements
- ◆ Perform metallurgical analysis of the heat-treated specimen with Optical microscope and Scanning Electron Microscope.

Relevant Courses:

Failure Analysis, Corrosion Engineering, Iron & Steel making, Mechanical Metallurgy, Polymers and Plastics, Powder Processing, Basic Electronics, Engineering Analysis, Welding Engineering, Diffusion in Solids, Scanning Electron Microscopy (SEM), Transmission Electron Microscopy (TEM), Advanced Materials Characterization, Engineering Material Science, Thermo-Mechanics of Metal Processing (ABAQUS), Non Destructive Testing, Thermodynamics of Materials, Electrical Engineering.

References: Available upon request
