



Dr. Poonam Sharma,
Assistant Professor, Physics
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Education

PhD (2018) – NIT, Jaipur, Rajasthan

Thesis titled “Corrosion Investigations on As-prepared and Ion Implanted Zr-based Bulk Amorphous Alloys”

MSc (2011) – NIT, Jaipur, Rajasthan

BSc (2009) – MGSU, Bikaner, Rajasthan

Key Skills

Dr. Poonam Sharma can provide comprehensive solutions to industry and other government bodies in the following areas:

1. Resolving Corrosion issues at industrial level and implication of corrosion control methods
2. Identifying corrosion problems at fundamental level.

Background

Joined GSFC University in July 2019

Scholarship and Accomplishments

Dr. Poonam Sharma worked as research scholar under research project entitled, “Development of Zr and Ni - based metallic glasses and Surface modification for reprocessing applications” from BRNS/ Department of Atomic Energy, Govt. Of India. Dr. Sharma has mainly focused on the corrosion properties of Zr-based bulk amorphous alloys which shows high corrosion resistance in nitric acid medium. She has carried out her research work at Indira Gandhi Center for Atomic Research, Kalpakkam, Tamilnadu” under the guidance of Dr. Kamachi Mudali in collaboration of BRNS/DAE Research Project. She has also worked on bulk metallic glass casting system and casted Zr-Cu-Ni-Al bulk metallic glasses which were further used for corrosion investigation in nitric acid medium. Dr. Sharma also performed Oxygen and Nitrogen ion implantation studies at IGCAR Kalpakkam.

Dr. Sharma has a teaching experience of more than 07 years. Previously she has served as an assistant professor at Jaipur national university, Jaipur for 01 year and at AnandICE, Jaipur Rajasthan for 03 years. She is working as an assistant professor, physics at GSFC University since July 2019.

She teaches physics to science students at B.Sc. and B.Tech. Program. Also Dr. Sharma teaches corrosion science subject to chemical engineering students. She exposes students to science fundamentals and has chosen teaching to conduct research in education. Dr. Sharma was a supervisor of 7 M.Sc. Student for M.Sc. Dissertation. Students have studied the effect of Banyan Tree Leaf Extract on Corrosion behavior of Mild steel in HCl, HNO₃, H₂SO₄ and NH₃ medium.

Dr. Poonam Sharma is also a Start-up coordinator of School of Science under GSFC University Innovation Incubation Technology Applied Research Centre (GUITAR) Council. She has mentored one project “water trace collector” funded under student startup and innovation policy (SSIP), Gujarat. Dr. Sharma is also a Life member of Society for Advancement of Electrochemical Science & Technology (SAEST) Karaikudi, Tamilnadu.

Most Three Notable Publications

1. Poonam Sharma, Anil Dhawan and S. K. Sharma, “Influence of nitrogen ion implantation on corrosion behavior of Zr₅₅Cu₃₀Ni₅Al₁₀ amorphous alloy” Journal of Non-crystalline Solids 511 (2019) 186-193.
2. Poonam Sharma, Anil Dhawan and S. K. Sharma, “Corrosion behaviour of amorphous Zr₅₉Nb₃Al₁₀Ni₈Cu₂₀ alloy in aqueous HNO₃ media”, Anti-Corrosion Method & Materials, Vol. 63, Issue 2 (2016) 97-104
3. Poonam Sharma, Anil Dhawan and S. K. Sharma, “Corrosion and surface characterization of Zr-based metallic glasses in nitric acid”, J. Advance Microscopy Research 9, (2014) 262-267.