

Mr. Rajesh Sharma

Assistant Professor Chemistry

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Education

- M.Sc. (Physical Chemistry) from H.P.U. Summer Hills, Shimla, H.P. in 2014
- B.Sc. (Basic sciences) from Govt. College Sanjauli, Shimla, H.P. in 2012

Achievements

- CSIR-JRF (Rank 54) qualified (December, 2015)
- Recipient of merit cum means fellowship for Post-Graduation
- Visvesvaraya Fellowship for PhD at IIT Kanpur

Research Interest:

Mr. Rajesh Sharma is currently pursuing his PhD (in part time mode) from Indian Institute of Technology, Mandi He is working on synthesis of Conducting polymer nanostructures and their composite with metal oxides like TiO_2 , ZnO , g-CN, BiOCl etc. and their application on pollutant degradation under UV-Visible light.

Since water is regarded as the most vital of natural resources worldwide for the sustainability of life, yet freshwater systems are directly threatened by human activities. Rapid industrialization has led to high discharge of organic pollutants into the environment, causing serious damage to aquatic life and human well-being. The use of solar energy to catalyze the photo-driven processes has attracted tremendous attention from the scientific community because of its great potential to address energy and environmental issues.

Semiconductor materials such as metal oxides, sulfides, and halides, among others, have been established as promising photocatalyst materials but their photocatalytic activity is limited due to inability to absorb photons beyond UV range and rapid electron hole recombination. Polymeric photocatalyst offer several advantages such as band gap corresponding to visible range, chemical inertness, thermal stability and high surface areas.

Publications and conference attended:

- International conference in Photonics at IIT Kanpur (July 2016)
- National workshop in Luminescence materials at DAE Kalpakkam, Tamil Naidu (Dec 2014)

Experience

- Assistant Professor in Chemistry at Govt. College Banjar (March 2017 onwards)
- JRF position at DAE, IGCAR, Kalpakkam Tamil Naidu through BARC recruitment (Sept. 2014 to Oct. 2015)
- PhD research fellow at IIT Kanpur (Oct 2015 to March 2017)

Teaching

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- CHM 101/102 (Organic, Inorganic & Physical Chemistry) for B.Sc. 1st Year
- CHM 201/202 (Organic, Inorganic & Physical Chemistry) for B.Sc. 2nd Year
- CHM 301/303 (Organic, Inorganic & Physical Chemistry) for B.Sc. 3rd Year