

Curriculum Vitae

Geeta Saini, Ph.D.

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Academic Experience

Post held Assistant Professor

Following courses has been taught to undergraduate students (BSc. [H] Chemistry and BSc. [Physical Science, Life Science])

- 1 Fundamentals of Organic chemistry
- 2 Chemistry of functional groups and Stereochemistry
- 3 Analytical chemistry
- 4 Atomic structure and Chemical bonding
- 5 Biochemistry and Environmental chemistry
- 6 Organic Spectroscopy

Research Experience:

Title of project: "Design and fabrication of organic solar cells using organic/inorganic hybrid absorber"

Post held Project Scientist

Period of service 1-02-2010 to 31-12-2010

Project Undertaken

1 Synthesis and characterization of organic ambipolar molecules for electronic applications

Sponsoring agency: Department of Science and Technology, under the scheme of Fast Track Scheme for young Scientist

Role Principal Investigator

Research Interests

Synthesis of low band gap organic semiconductors (oligomers and polymers) and conducting nano composites as potential candidates for various electronic applications.

Fellowship and Awards

- Junior/Senior Research Fellow at Indian Institute of Technology, Delhi, India
- Received award for best poster in the National Seminar on "Polymer Science and Technology-Vision and Scenario" held at Jamia Millia Islamia, New Delhi, 2008.
- Qualified NET (National Eligibility Test for Lectureship) and JRF (2004) conducted by Council of Scientific and Industrial Research (CSIR) New Delhi, India.
- Awarded merit certificate for securing highest marks in chemistry in Intermediate.

Workshops and Conferences Participated

- 1 Participated in **SERC school** on "Polymer based composite and Nano composite" organized by Indian Institute of Technology, New Delhi, from 26th Nov to 1st Dec. 2007.
- 2 Awarded best poster presentation in the **National Seminar** on "Polymer Science and Technology-Mission & Scenario" organized by Jamia Milia Ismalia on 3rd Dec.2008.
- 3 Participated in **APA-2009** (Asian Polymer Congress) held during 17th Dec to 20th Dec. 2009.
- 4 Participated in Project Display in **I²Tech** held on 2009 at Indian Institute of Technology, Delhi
- 5 Participated in **MACRO 2010**, 11th International Conference on Frontiers of polymers & advanced materials" held on 15th to 17th Dec. 2010.
- 6 Presented a poster in International polymer conference "**POLYCHAR-18**" organized by University of Siegen, Germany, during 6th to 10th April 2010.
- 7 Attended a National Seminar on "**Recent Trends in Chemistry**" organized by Dept. of Chemistry, Sri Venkateswara College, during March 20th to 22nd 2012.
- 8 Attended a workshop on "**Theory and Practical Course**" on **Biochemistry & Environmental Chemistry**, organized by Dept. of Chemistry, University of Delhi during 2nd to 7th July 2012.

9 Attended a workshop on foundation course “**Science and Life**” organized by UGC-ASC during 21-22nd June 2013.

Short Term Courses attended

1 Short course on “**Modern Methods of Polymer Characterization**” at University of Siegen, Germany on 6th April 2010.

2 Short term training program on Recent “**Development in Nano and Micro manufacturing**” organized by School of Engineering and Technology” IGNOU, Delhi on 15-19th April 2013.

Technical skills

Sci-Finder, ACD Lab, ISIS Draw, End Note. MS Office, Organic Synthesis (dealing with scheme set up for a particular problem, monitoring the progress of the reaction, isolation, purification, characterization of the desired compounds), ¹H, ¹³C Nuclear magnetic resonance (NMR) spectroscopy, Mass Spectroscopy, Infra-red spectroscopy, UV-Visible spectroscopy, Fluorescence spectroscopy.

Publications

1. “Tetrathiophenes with thiophene side chains: Effect of substitution on packing and conjugation.” **G. Saini**, N. T. Lucas, J. Jacob, **Tetrahedron Letters**, **2010**, **51**, **2956**.

2. “Synthesis and characterization of hexathiophenes with methylthienyl side chains.” **Geeta Saini** and Josemon Jacob, **Macromolecular Symposia**, **2010**, **298**, **154-159**.

3. “Synthesis and characterization of 3,4-diaryl substituted polythiophene derivatives.” **Geeta Saini** and Josemon Jacob. **Polymer International**, **2011**, **60**, **1010-1015**.

4. “Synthesis, characterization and OFET characteristics of 3,4-diaryl substituted poly(thienylene vinylene) derivatives.” **Geeta Saini**, Josemon Jacob, Satyaprasad P S and K S Narayan. **Polymer Bulletin**, 2011, 67, 753.

5 "Interplay of alpha,alpha versus alpha,beta-conjugation into the Excited States and Charged Defects of Branched Oligothiophenes as Models for Dendrimeric Materials" Rafael C. González-Cano*, **G. Saini**, J. Jacob, J. T. López Navarrete, J. Casado M. Carmen Ruiz Delgado Chemistry A European Journal Volume 19, Issue 50, 2013, Pages: 17165–17171. Publication Wiley Online ISSN:1521-3765

6 Effect of Spacers on 3, 4-Disubstituted Polythiophene Derivatives

Geeta Saini, The International journal of Engineering and Science, 2014, Volume 3, Issue 3, Pages 38-42 ISSN(e): 2319 – 1813 ISSN(p): 2319 – 1805

7 Wealth from Waste: A Green Method to Produce Biodiesel from Waste Cooking Oil and Generation of Useful Products from Waste Further Generated “A Social Awareness Initiative” in the inaugural issue of Journal of Undergraduate Innovation and Research (e journal by University of Delhi)

Book Published

Science and Life

Based on the syllabus of four year undergraduate introduced by University of Delhi

Co-author Dr. Richa Acharya

Publisher R. Chand & Co. Delhi. **ISBN 81-8045-095-3**

Conference paper

“**Synthesis and characterization of thiophene based low band gap materials**” Geeta Saini and Josemon Jacob, Paper presented in 25th Annual Meeting of Polymer Processing Society (PPS-25), (March 1-5, 2009) Goa, India.

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New Delhi