Saurabh S. Soni, **Ph. D.** **soni_b21@yahoo.co.in**

Professor, Department of Chemistry
&
Director, Department of Applied and Interdisciplinary Sciences, Sardar Patel University,
Vallabh Vidyanagar – 388 120, Gujarat, INDIA
Phone : +91-9898945456

Curriculum Vitae

Personnel Information :

D. O. B. : **22nd January 1977**
Gender : **Male**
Nationality : **Indian**

Current areas of Research :

- Aqueous polymer gel based electrolyte for rechargeable metal ion batteries and supercapacitors.
- Fabrication/Development of highly efficient and low cost Dye Sensitized Solar Cell (DSSC) using mesoporous titanium dioxide templated by block copolymers.
- Synthesis of Bronsted Ionic Liquids and their activity in various organic reactions.
- Self-assembly and association behavior of amphiphilic block copolymers and their interactions with various additives like ionic liquids, non-electrolytes etc.

Educational Qualifications :

Post Doctoral Fellowship (2005 – 2006)	Laboratoire des Physique E'tate Condense, Universite du Maine, Le Mans, France
Doctor of Philosophy in Chemistry (1999 – 2003)	P. G. Department of Chemistry, Sardar Patel University, Vallabh Vidyanagar
Master of Science (Physical Chemistry) (1997 – 1999) First class with distinction (72.3%)	P. G. Department of Chemistry, Sardar Patel University, Vallabh Vidyanagar
Bachelor of Science (1994 – 1997) First class (68%)	V. P. & R. P. T. P. Science College, Vallabh Vidyanagar

Title of Post Doctoral Research : "*Synthesis, Characterization and Photocatalytical Activities of TiO_2 mesoporous thin films templated by Block Copolymers"*

Title of Ph. D. Thesis : *"Surface Activity and Phase Behavior of Amphiphilic Copolymers in Aqueous Solutions"*

Awards and Honors :

- Received "GSA-Dr. A. K. Shah Best Paper award – 2018, 2020, 2021, 2024, 2025" from Gujarat Science Academy.
- Recipient of "Sardar Patel Research Award – 2018" (Cash Prize of Rs. 10,000/-).

- Honored with ***INSA-CAS Bilateral Scientist Exchange Programme – 2018*** for visiting CHINA for the period of 4 weeks
- Received "**IAAM Scientist Medal – 2017**" for outstanding work in the area of nanoscience and technology from International Association of Advanced Materials, Sweden.
- Received "**Young Scientist Award**", DST, New Delhi
- Awarded three years (2015-2018) membership of "**American Chemical Society**"
- **Most cited article** (J Mol. Catal. A, 2012) during the year 2011 – 2012 (Elsevier Publication)
- **Best Research Paper** (Langmuir 2010) Award (Price of Rs. 11,000/-) by Community Science Centre, Rajkot, INDIA
- **1st Rank holder** at M. Sc. Physical Chemistry (1999), SPU

Membership :

- Associate Fellow of Gujarat Science Academy (GSA) from April 2019.
- Member of "**American Chemical Society, USA**" for the period of 2015-2018)
- Life member "**Neutron Scattering Society of India**"
- Life member of "**Society of Material Chemistry of India**"
- Life member of "**Indian Society for Radiation and Photochemical Sciences"**
- Member of **"Board of Studies for Chemistry, S. P. University, V. V. Nagar**
- Member of **"University & Industry Interaction Cell (UIIC)"**

Research Projects :

SR. NO.	TITLE	FUNDING AGENCY	PERIOD	GRANT/ AMOUNT MOBILIZED (RS.)
1.	Development of High Efficiency, Low Cost Dye Sensitized Solar Cell	DST, New Delhi	July 2009- August 2012	Rs. 20,43,508/-
2.	Influence of Micellar Morphology on Conductivity of Polymer Gel Electrolytes	UGC-DAE, Mumbai	1st April 2012 – 31st March 2015	Rs. 5,92,000/-
3.	Development of porous functionalized metal oxides and their application in metal ion removal	UGC, New Delhi	1st July 2012 – 30st June 2015	Rs. 10,35,000/-
4.	Development of Water Based Polymer Gel Electrolytes for Advanced Devices	SERB-DST, New Delhi	1st April 2013 – 31st March 2016	Rs. 25,40,800/-
5.	Scaling up of the dye sensitized solar cell fabrication	DST, New Delhi	1st September 2014- 31st August 2016	Rs. 87,58,816/-
6.	Colored fluorescent conducting oligomers/monomers for Dye Sensitized Solar Cells (PI : Prof. Dr. N. Sekar & Co-PI : Dr. S. S. Soni)	DST, New Delhi	1st August 2016 – 31st Dec. 2020	Rs. 88,78,099/-

7.	Effect of various metal salts on micelles of Amphiphilic Block Copolymers for Energy Storage Applications	UGC-DAE CSR, Mumbai	1st April 2018 – 31st March 2021	Rs. 6,50,000/-
8.	Surfactant Based Aqueous Electrolytes for Rechargeable Zinc Ion Batteries	KCG-GoG, Ahmedabad	1st Feb. 2026-31st Jan. 2028	Rs. 3,50,000/-

Teaching Experience :

- Worked as **Adhoc Lecturer** in Department of Chemistry, Sardar Patel University, Vallabh Vidyanagar during the period 7th July 2003 to 7th September 2003. ***(For Post Graduate Students)***
- Worked as **Lecturer** in Gyanyagna College of Pure Applied Sciences, Kalawad Road, Rajkot from September 2003 - July 2006. (***For Undergraduate Students***)
- Worked as **Assistant Professor** in Physical Chemistry at Department of Chemistry, Sardar Patel University, Vallabh Vidynagar, India from July 2006 – Oct. 2016. ***(For Post Graduate Students).***
- Working as **Professor** in Chemistry at Department of Chemistry, Sardar Patel University, Vallabh Vidyanagar since Oct. 2016. ***(For Post Graduate Students).***
- Working as **Director**, Department of Applied and Interdisciplinary Sciences (IICISST), Sardar Patel University since May 2022.

Research Experience (Including Foreign Institutes):

- Worked as a Project Assistant in a IUC-DAEF, BARC, Mumbai sponsored research project at Department of Chemistry, Sardar Patel University for more than three years from August 1999 to March 2003.
- Worked as a "**Post Doctoral Research Fellow**" at Universite du Maine, Le Mans, France during May 2005 to July 2006.
- As a "**Visiting Scientist**" at Research School of Chemistry, Australian National University (ANU), Canberra, Australia during November 2005 – December 2005.
- Selected as "**Visiting Professor Scheme**" to visit **Universite du Maine, France** during for the period of one month (June – July 2009).
- Visited **IMMM, Universite Du Maine, Le Mans, FRANCE** as a **Visiting Professor** for the period of the one month. i.e. 22nd Sept. 2014 – 22nd Oct. 2014.
- Visited **QIBEBT, Chinese Academy of Science, CHINA under INSA-CAS Bilateral Scientist Exchange Programme – 2018** for the period of 4 weeks (i.e. from 10th May 2018 – 8th June 2018).

No. of Ph. D. Students :

Degree Awarded **: 09** Currently Working **: 06**

List of Patent: (No. of Patents = 03)

1. Substituted Carbazole based Dyes for Dye Solar Cells and other Optoelectronic devices.
   Inventors : Kishan B. Faladu and ***Saurabh SONI***
   Patent file no. 2609/MUM/2013 dated 7th August 2013 (Accepted in April 2018)

2. A Crystalline Reduced Graphene Oxide for Amplified Light Transmission and Dust Repellent Coating.
   Inventers : Karan Surana and ***Saurabh S. Soni***
   Patent Application no. 202321020087 dated 22nd March 2023

3. Solid-State Separator Free Metal-ion Energy Storage Device with Dioxane dione dathode and method thereof.
   Inventers : Sanjay Bariya, ***Saurabh S. Soni***, Bhavna S. Soni
   Patent Application no. 202321084137 dated 9th December 2023

List of Book Chapter : (No. of book chapters = 04)

Sr.No	Title	Author's Name	Publisher	Year of Publication
01	Quasi-Solid-State Electrolytes for Lithium-Ion Batteries (Chapter 5) (ISBN:9780367701444) (eBook ISBN9781003144816) Title of Book : Ceramic and Specialty Electrolytes for Energy Storage Devices Eds.: Prasanth Raghavan, Jabeen Fatima	Hiren K. Machhi, Keval K. Sonigara, ***Saurabh S. Soni***	CRC Press, Taylor & Francis Group	March 2021
02	Aqueous Electrolytes for Lithium and Sodium Ion Batteries (Chapter 9) (ISBN:9780367701444) (eBook ISBN9781003144816) Title of Book : Ceramic and Specialty Electrolytes for Energy Storage Devices Eds.: Prasanth Raghavan, Jabeen Fatima	***Saurabh S. Soni***, Jyoti Prasad	CRC Press, Taylor & Francis Group	March 2021
03.	Role of metal oxides as photoelectrodes in dye-sensitized solar cells (Chapter 9) (ISBN : 978-0-323-85705-5) Title of Book : Advances in Metal Oxides and Their Composites for Emerging Applications Ed.: Sagar D. Delekar	Jayraj V. Vaghasiya, Keval K. Sonigara, ***Saurabh S. Soni***	Elsevier	June 2022
04.	Metal oxides as photoanodes for photoelectrochemical water splitting: synergy of oxygen vacancy (Chapter 3) (ISBN : 978-0-323-85705-5) Title of Book : Advances in Metal Oxides and Their Composites for Emerging Applications Ed.: Sagar D. Delekar	Keval K. Sonigara, Jayraj V. Vaghasiya, ***Saurabh S. Soni***	Elsevier	June 2022

Publications in Journals **(No. of publications = 136)**