

Resume

Dr. Sagar Hindurao Patil Assistant Professor, PG Department of Chemistry, S. G. M. College, Vidyanagar, Karad, Maharashtra, India. PIN: 415124	E-Mail: sagarpatil.science@gmail.com Mobile: (+91)-8788504080 https://scholar.google.co.in/citations?us	
	Date of Birth: 13 th Jun 1985 Nationality: Indian Sex: Male Marital Status: Married	

Education Details:

2011- 2016 (November-2016): PhD (Chemical Science 1st class) Council of Scientific and Industrial Research (CSIR)-National Chemical Laboratory (NCL) Pune.

Advisor: Dr. Rajesh G. Gonnade, Scientist, CSIR-National Chemical Laboratory, Pune.

Co-Advisor: Dr. Kashinath R. Patil, Scientist, CSIR-National Chemical Laboratory, Pune.

2006-2008: Master of Science (M.Sc. Chemistry with 1st class): *Swami Ramanand Tirth Marathwada* University (SRTMU), Nanded, Maharashtra state, India.

2003-2006: Bachelor of Science (B. Sc. Chemistry with 1st class): *Shivaji* University, Kolhapur, Maharashtra state, India.

Research Experience:

Research fellow: Physical and Material Chemistry Division, National Chemical Laboratory, Pune. (Jan-2011-Jul-2016)

Early Stage Researcher (ESR): The Marie Curie FP7 program of European Union (EU) (Apr-2014-Jun-2014) at the University of *Rovira (I) Virgili* (URV), Tarragona, Catalan, Spain.

Early Stage Researcher (ESR): The Marie Curie FP7 program of European Union (EU) (Sept-2012-Dec-2012) at the *Lisbon* University, Portugal.

Teaching Experience:

Assistant Professor: Postgraduate Department of Chemistry, SGM College (Autonomous), Karad, Shivaji University. (July 2019 to Present)

Assistant Professor: Postgraduate Department of Chemistry, KBP College (Autonomous), Vashi, Mumbai University. (July 2017 to July 2019)

Assistant Professor: Postgraduate Department of Chemistry, RBNB College, Shrirampur, Pune University. (July 2016 to April-2017)

Assistant Professor: Under graduate Department of Chemistry ACS College Shivle, Murbad, Mumbai University. (July 2008 to April 2009)

Awards and fellowships:

Senior Research Fellowship (SRF): (Chemistry, 2013)

Council of Scientific and Industrial Research (CSIR), New Delhi, India

National Eligibility Test & Junior Research Fellowship (NET-JRF): (Chemistry, 2011)

Council of Scientific and Industrial Research (CSIR), New Delhi, India

Graduate Aptitude Test in Engineering (GATE): (Chemical sciences, 2011) Indian Institute of Technology (IIT), India

Maharashtra State Eligibility Test (MH-SET): (Chemical sciences, 2018) SP Pune University, Pune, India.

Best Publication Award: A paper with highest IF for the academic year 2018-2019 in K. B. P. College (Autonomous), Vashi, Mumbai.

Responsibilities Handled:

Chair Person: Innovation and Entrepreneurship Development Cell, K. B. P. College (Autonomous), Vashi, Mumbai (2018-2019)

Member: Research Promotion, Innovations and Ethics, K. B. P. College (Autonomous), Vashi, Mumbai (2017 to Present)

Computational Skills:

Chem Bio Draw 14.0, End Note 11.0, Microsoft office 2007/2010, Origin 8, Veeco AFM, Gatan-HRTEM, CASA-XPS, XPS 4.1, EC-Lab 10.21, SPIP, Raman-FTIR, Biologic EC-Lab Express V 5.52. Keithley Kick Start etc.

Instrument Handling:

X-Ray Photoelectron Spectroscopy (XPS), Raman Spectroscopy, X-ray Diffractometer (XRD), Atomic Force Microscope (AFM), Biologic Cyclic voltammetry workstation (CV), Keithley 2450, Karl Fisher, UV-Vis. Spectrophotometer, BET-Surface area Analyzer, AAS, ICP, FT-IR, DLS and Zeta potential, TGA/DTA/DSC.

Publications:

- 1) Facile room temperature methods for growing ultra thin films of graphene nanosheets, nanoparticulate tin oxide and preliminary assessment of graphene-tin oxide stacked layered composite structure for supercapacitor application. **S. Patil**, V. Patil, S. Sathaye, K. Patil, *RSC Advances*, 2014, 4 (8), 4094. **(IF: 3.2)**
- 2) Development of a novel method to grow MoS₂ mono/few-layer films and MoS₂-graphene hybrid films for supercapacitor applications. **S. Patil**, A. Harle, S. Sathaye, K. Patil, *CrystEngComm.*, 2014, 16 (47), 10845. **(IF: 3.8)**
- 3) Studies on morphology of polyaniline films formed at liquid–liquid and solid–liquid interfaces at 25 and 5 C, respectively, and effect of doping. B. Waghmode, **S. Patil**, M. Jahagirdar, V. Patil, R. Waichal, D. Malkhede, S. Sathaye, K. Patil *Colloid and Polymer Science*, 2014, 292 (5), 1079. **(IF: 1.8)**
- 4) A facile room temperature synthesis of ZnO nanoflower thin films grown at a solid–liquid interface. A. Jadhav, **S. Patil**, S. Sathaye, K. Patil, *Journal of Materials Science*, 2014, 49 (17), 5945. **(IF: 2.3)**
- 5) Spin Transport and Magnetic Correlation Parameters for Graphene-like Nanocarbon Sheets Doped with Nitrogen. A. Alegaonkar, A. Kumar, **S. Patil**, K. Patil, S. Pardeshi, P. Alegaonkar, *The Journal of Physical Chemistry C*, 2014, 117 (51), 27105. **(IF: 4.5)**
- 6) Solar photocatalytic degradation of methylene blue using doped TiO₂ nanoparticles. R. Bhosale, S. Pujari, G. Muley, **S. Patil**, K. Patil, M. Shaikh, A. Gambhire, *Solar Energy*, 2014, 103, 473. **(IF: 3.6)**
- 7) Architecturally Designed Pt-MoS₂ and Pt-Graphene Composites for Electrocatalytic Methanol Oxidation. **S. Patil**, B. Anothumakkool, S. Sathaye and K. Patil, *Phys. Chem. Chem. Phys.*, 2015, 17, 26101. **(IF: 4.4)**

- 8) A method to form semiconductor quantum dot (QD) thin films by igniting a flame at air–liquid interface: CdS and WO₃. A. Jadhav, **S. Patil**, S. Sathaye, K. Patil, *Journal of colloid and interface science*, 2015, 439, 121. (IF: 3.7)
- 9) Reduced Graphene Oxide Composite with Redoxible MnCo-oxide for p-cresol Oxidation using Molecular Oxygen. A. Jha, **S. Patil**, A. Ribeiro, B. Solanki, C. Castro, K. Patil, A. Coronas and C. Rode, *Chem plus chem.*, 2015, 80(7), 1164. (IF: 2.8)
- 10) Amelioration of excision wounds by topical application of green synthesized, formulated silver and gold nanoparticles in albino wistar rats. S. Naraginti, P. Kumari, R. Das, A. Sivakumar, **S. Patil** and V. Andhalkar, *Materials Science and Engineering: C*, 2016, 62, 293. (IF: 3.4)
- 11) Diastase induced green synthesis of bilayered reduced graphene oxide and its decoration with gold nanoparticles. S. Maddinedi, B. Mandal, **S. Patil**, V. Andhalkar, S. Ranjan, N. Dasgupta, *Journal of Photochemistry and Photobiology B: Biology*, 2017, 166, 252. (IF: 3.0)
- 12) To form layer by layer composite film in view of its application as supercapacitor electrode by exploiting the techniques of thin films formation just around the corner. **S. Patil**, A. Jadhav, S. Sathaye, K. Patil, *Electrochimica Acta*, 2018, 265, 556. (IF: 6.2)
- 13) A composite thin film of simultaneously formed carbon and SnO₂ QDs for supercapacitor application. A. Gaikwad, **S. Patil**, K. Patil, S. Sathaye and Chandrashekhar V. Rode, *New J. Chem.*, 2018,42, 8823-8830. (IF: 3.2)
- 14) New insights towards strikingly improved room temperature ethanol sensing properties of p-type Ce-doped SnO₂ sensors. M. Kumar, V. Bhatt, A. Abhyankar, J. Kim, A. Kumar, **S. Patil**, J-H. Yun, *Scientific Reports*, vol. 8, Article number: 8079 (2018). (IF: 4.6)
- 15) A graphene–MnO₂ composite supercapacitor material accomplished tactically using liquid– liquid and solid–liquid interface reaction techniques, Sagar H. Patil, Aarti P. Gaikwad, Babasaheb J. Waghmode, Shivaram D. Sathayed and Kashinath R. Patil, *New J. Chem.*, 2020, 44, 6853-6861. (IF: 3.2)
- 16) Solar Energy Triggered Photocatalytic breakdown of harmful pigments by using porous rGO-ZnO and rGO-Co-doped ZnO nanoparticles composites. Apurva Jadhav, Aarti Gaikwad and **Sagar Patil**,* *communicated*.
- 17) Visible light driven Photocatalytic Splitting of H₂S by using a promising rGO-TiO₂ and rGO-Co-doped TiO₂ nanoparticles composites. Smita Gavhane, Aarti Gaikwad and **Sagar Patil**,* *communicated*.

Conference Papers

- 1) Thermal Conductivity of Graphene based IoNANOFLUIDS, **S. Patil**, K. Patil, F. Reis, S. Vieira, S. Murshed, M. Lourenço, C. Castro. WLS-2013-Jan. CSIR-NCL, Pune-India.
- 2) Study of Anion effect and heat transfer properties of Ru-Ionano fluids, V. Patil, **S. Patil**, K. Patil, C. Rode, A. Coronas and C. Castro, Solar Absorption Refrigeration Systems Operating with Ionic Liquids, IIT-Madras, FEB-2014.
- 3) Solar energy assisted photocatalytic degradation of organic pollutants by various transition metal oxide nanoparticles. Joel Desousa, Atul Shahane, Arun Deshmukh and **Sagar Patil***, ABMSP's APCOER Pune, NCTR- 2/ 2017.

Prominent Conferences and workshops attended:

- 1) Attended 1st CRSI Zonal Meeting at CSIR-NCL, Pune, May-2011

- 2) 2nd International Workshop on “Ionic Liquids: Alternative Benign Materials for Renewable Energy and its Applications” WILS-2013-Jan. CSIR-NCL, Pune-India. **Oral presentation.**
- 3) “The Wonderland of Molecular Structures through the “Looking-Glass of X-ray Crystallography” at CSIR-NCL, Pune, Sept-2013
- 4) An Indo-Spanish Workshop, Solar Absorption Refrigeration Systems Operating with Ionic Liquids, IIT-Madras, FEB-2014. **Oral Presentation**
- 5) “International Conference on Structural and Inorganic Chemistry” conducted by IISER-Pune and CSIR-NCL, Pune, DEC-2014.
- 6) National workshop on “Scientific/Research Paper Writing” at Department of Chemistry, SP Pune University, Pune in Dec-2014
- 7) National Seminar on “Advanced Nano-Materials and Nanotechnology” at K. B. P. College (Autonomous), Vashi, Mumbai, Jan-2019.

Poster Presentation:

1. Science Day and International Year of Chemistry, February 2012, CSIR-NCL, Pune
2. International Workshop on “Ionic Liquids: Alternative Benign Materials for Renewable Energy and its Applications” WILS-2013-Jan. CSIR-NCL, Pune-India.
3. An Indo-Spanish Workshop, Solar Absorption Refrigeration Systems Operating with Ionic Liquids, IIT-Madras, FEB-2014.

The above information is true to the best of my knowledge,

(Dr. Sagar H. Patil)