

## Curriculum Vitae

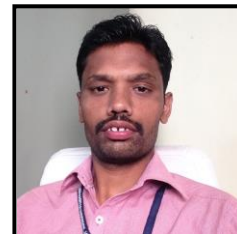
### Contact Details:

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### Research Interests:

- ❖ Synthesis of conducting polymer and composites nanostructure using surfactant based soft templates.
- ❖ The surfactant based swollen liquid crystal used as nanoreactors for developing 1D, 2D and 3D nanostructure materials.
- ❖ Synthesized conducting polymers and composites material thin film (e.g. spin coating or dip coating method) for application in supercapacitor (for energy storage).
- ❖ Synthesized of inorganic metal nanoparticles (Ag, Au and Pt) nanostructures using greener approach.

### Research Experience:

**Research Associate, [July 2017 to present]** Department of Chemistry, M. J. College, Jalgaon and collaboration with SOCS, NMU, Jalgaon under the Supervision of Prof. V. S. Zope.

**Project title:** Synthesis of conducting polymers/carbon based material composites.

- ❖ Synthesis of conducting polymer/composites using soft templates.
- ❖ Nanostructures material good conductance and capacitance.

### Skills:

- Expertise to design synthetic routes, synthesis and characterization of conducting polymer metal nanostructure and composite through controlled emulsion polymerization technique.
- Characterization of polymers using a full scope of instrumentation. Acquisition and analysis using modern spectroscopic methods (TEM, FE-SEM, AFM, ATR-FTIR, UV, etc.) and Electrochemical work station (PG-STAT) for supercapacitor application.
- Handling of nonconventional techniques for reactions such as Microwave, High Pressure Autoclaves, Spin coating, Silar method, Ultrasonic bath, etc.

**Fellowships/Awards:**

- Awarded (INSPIRE) Fellowship Innovation in Science Pursuit for Inspired Research, DST, New Delhi, India.
- Awarded Junior research fellowship (**JRF**) (22nd Aug. 2012 to 07th Dec. 2015).
- Awarded Senior research fellowship (**SRF**) (08th Dec. 2015 to 07th Jun. 2017) **IF-120468**.
- “**Life membership**” Society of Material Chemistry, BARC, Mumbai.

**Computer Skill:**

- Extensive knowledge of all Microsoft Office programs (Excel, PowerPoint and Word).
- Proficient in a range of Chemistry Software packages including the ISIS suite, Chem Draw, Origin Pro, Image J, Nova Software and various NMR packages (Like ACD lab).
- Experienced in online literature search using different tools like Sci-finder, Beilstein search, CA on CD, Discovery gate, Web of science etc.
- Competent in preparation of research reports and scientific manuscripts.

**Education/Research:**

- **Ph. D. in Chemistry [Awarded Jun-2017]** School of Chemical Sciences, North Maharashtra University, Jalgaon, India. Research Supervisor: Prof. V. S. Zope and Prof. P. P. Mahulikar, School of Chemical Sciences, North Maharashtra University, Jalgaon, M.S. India.  
**Title of thesis:** “Synthesis, Characterization and Application of Conducting Nanopolymers and Their Composites using Surfactant Assisted Nanoreactor”.
- **Master of Science in Physical Chemistry (M. Sc)** [2011], School of Chemical Sciences, North Maharashtra University, Jalgaon - 425001, M.S. India. (74.50 % First class) Secured first rank in University.
- **Bachelor of Science in Chemistry (B. Sc)** [2009], B.S.S.P.M. College, Songir, North Maharashtra University, Jalgaon, M.S. India. (65.41 % First class).
- **Advanced Diploma in Textile Wet Processing (ADTWP)**[2009] SVKM’S, NMIMS University, Mumbai India, (CGPA 2.83)

**Conferences/Posters/Workshops:**

1. National conference on “Frontiers in Physical, Chemical & Biological Sciences” on the occasion of Prof. H. J. Arnikaar Birth Centenary year 4-6 Oct-2013, Department of Chemistry, University of Pune.
2. DAE-BRNS Twelfth Biennial, Trombay Symposium on Radiation & Photochemistry (TSRP-2014) 6-9 Jan-2014 Radiation and Photochemistry Division, Bhabha Atomic Research Centre, Mumbai India.

3. DAE BRNS, 5th Interdisciplinary Symposium on Material Chemistry (ISMC-2014) 6-9 Dec 2014 at Bhabha Atomic Research Centre, Mumbai, India.
4. Attended one day workshop on “Indian Patenting and Filing Procedures” organized by RUSA, Gov. of Maharashtra, at North Maharashtra University, Jalgaon. August 23, 2016.

**Publications:**

1. Shivkumar Y. Patil, Pramod P. Mahulikar, Sandeep J. Pawar, Vishwanath. S. Zope. Fe<sub>3</sub>O<sub>4</sub>-polyaniline nanofibers synthesis in non-ionic surfactant based swollen liquid crystals. IJASTR, 6(2)248-267, 2016.
2. Sandeep J. Pawar, Shivkumar Y. Patil, Pramod P. Mahulikar, Vishwanath. S. Zope Synthesis of Ibuprofen Intermediate using Alcoholic Silver Nanoparticles and its Kinetics: A Greener Approach towards Drug Synthesis. Chemical Physics Letters 671, 147-153, 2017.
3. Sandeep J. Pawar, Shivkumar Y. Patil, Pramod P. Mahulikar, Vishwanath. S. Zope Gold Nanoparticles Catalyzed Synthesis Of Ibuprofen Intermediate In Aqueous Ethanol. Bionano Frontier, volume 10, issue 1, Print ISSN 0974-0678, online ISSN 2320-9593 2017.
4. Sandeep J. Pawar, Shivkumar Y. Patil, Ajit M. Kalekar, Geeta K. Sharma, Pramod P. Mahulikar, Kiran Kumar K. Sharma. Synthesis of paracetamol from environmental pollutant by using silver nanoparticles as catalyst: A single step greener approach. Environment Observer, 13, 133-134, 2013.
5. Shivaji N. Tayade, Shivkumar Y. Patil, Kiran Kumar K. Sharma. Electrochemical investigation into the mechanism of redox shift in the oxidation of guanine and derivatives in room temperature ionic liquids.

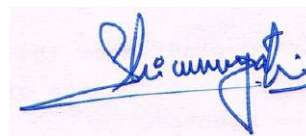
**Declaration:**

I hereby declare that the above-mentioned information is correct up to my knowledge and I bear the responsibility for the correctness of the above-mentioned particulars.

**References:**

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**Prof. P. P. Mahulikar**  
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(Shivkumar Y. Patil)