

Curriculum Vitae

Dr. Shahaji Rajaram Gaikwad

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Gender: Male,

Marital status: Married

Languages known: English, Hindi & Marathi



Educational Qualification

Post-doctoral Fellow

: Catalysis and polymer chemistry (KAUST, Saudi Arabia).

Ph. D.

: Catalysis, renewable monomers and polymers, polymer chemistry

Thesis Title

: “Late transition metal catalyzed insertion copolymerization of 1, 1-disubstituted difunctional polar monomers with ethylene: synthesis, reactivity and implications”

PhD Supervisor

: Dr. Samir Chikkali

Principal scientist & associate professor (AcSIR), PSE division, CSIR-national chemical laboratory, pashan, pune-411008, India. Phone: +91 2025903145

Academic Experience/Scholarships

- Two year graduate chemistry teaching experience in GMV college of science, tala, raigad, Maharashtra India.
- 1 year post PhD experience as project assistant-III in CSIR-NCL, Pune, India.
- 2 years post PhD experience as postdoctoral fellow in KAUST, Saudi Arabia.

Academic Achievements/Awards/Scholarships

- **Junior Research Fellowship:** Awarded by the council of scientific and industrial research (CSIR-JRF), New Delhi, India in the field of chemical science (June 2011).
- **Senior Research Fellowship:** Awarded by the council of scientific and industrial research (CSIR-SRF), New Delhi, India in the field of chemical science (July 2014).

Posters and oral presentation in conference

1. Sustainable polyacetals from isohexides, **poster presentation** at national science day celebration, national chemical laboratory, pune, India, 25th – 26th February 2014.

2. Copolymerization of polar difunctional olefins with ethylene; **poster presentation** at national science day celebration, national chemical laboratory, pune, India, 25th-26th February 2016.
3. Copolymerization of polar difunctional olefins with ethylene; **oral presentation at FAPS-2017, Jeju, South Korea**, 11th-13th October 2017.

Scientific and experimental skills

- **Polymer/organometallic chemistry:** Experience in small organic compound synthesis, ligand synthesis, polymerization techniques, synthesis and handling various kinds of reagents and exposure to dry as well as low temperature reactions, handling glove box. Product identification and polymer characterization methods like TLC, GPC, TGA, and DSC, MALDI-ToF. Product characterization using various spectroscopic techniques such as NMR, HRMS, IR, UV, Elemental analysis.
- **Software tool exposure:** Expertise in MS-Office, Chem Draw, ACD Specview, MestReNova, Top Spin NMR, search engines like Scifinder, Reaxys, Scopus and Web of Science.
- **Language skill:** English has been the medium of instruction throughout my academic career and I can fluently speak, write in this language. Besides, I have a good knowledge of Hindi and Marathi as regional languages.

Research Interests

- Synthesis of phosphine ligands, nitrogen containing ligands, metal complexes and their implications in catalysis
- Synthesis, catalysis of transition metal catalysts and isolation of reactive intermediates
- Functional olefin polymerization & synthesis of well-defined polymers with complex macromolecular architecture
- Renewable monomer and polymer synthesis.

References:

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List of Publications:

1. Mote, Nilesh; **Gaikwad, Shahaji.**; Gonnade, Rajesh; Chikkali, Samir, H.; **Dalton Trans.**, **2021**, 50, 3717 - 3723. <https://pubs.rsc.org/en/Content/ArticleLanding/2021/DT/D1DT00093D>
2. **Gaikwad, Shahaji. R.**; Deshmukh, Satej. S.; Mote, Nilesh. R.; Birajdar, Rajkumar; and Chikkali Samir, H.; **chempluschem**, **2020**, 85, 1200 – 1209. <https://chemistry-europe.onlinelibrary.wiley.com/doi/10.1002/cplu.202000309>
3. Deshmukh, Satej; **Gaikwad, Shahaji R.**; Mote, Nilesh; Birajdar, Rajkumar; and Chikkali, Samir *; **Chem. Asian J**, **2020**, 15, 398-405. <http://dx.doi.org/10.1002/asia.201901501>
4. Deshmukh, Satej. S.; **Gaikwad, Shahaji. R.**; Mote, Nilesh. R.; Manod M. and Chikkali, Samir. H.; **ACS Omega** **2019**, 4, 9502–9511. (contributed equally with first author). <https://pubs.acs.org/doi/pdf/10.1021/acsomega.9b00709>
5. **Gaikwad, Shahaji. R.**; Deshmukh, Satej. S.; Koshti, Vijay.; Poddar, Suparna.; Gonnade, Rajesh.; Rajamohanan, Pattuparambil. and Chikkali, S. H., **Macromolecules**, **2017**, 50, 5748-5758. <https://pubs.acs.org/doi/abs/10.1021/acs.macromol.7b01356>
6. Deshmukh Satej.; **Gaikwad, Shahaji. R.**; Pandey, Swechchha.; Mali, Pramod.; Chikkali, Samir. H.; **J. Chem. Sci. (India)** **2017**, 129, 1143. <https://link.springer.com/article/10.1007/s12039-017-1341-z>
7. Mote, Nilesh.; Patel Ketan.; Shinde, Dinesh.; **Gaikwad, Shahaji. R.**; Koshti, Vijay.; Gonnade, Rajesh.; Chikkali Samir. H. **Inorg. Chem.** **2017**, 56, 12448-12456. <https://pubs.acs.org/doi/abs/10.1021/acs.inorgchem.7b01923>
8. **Gaikwad, Shahaji. R.**; and Chikkali, Samir. H. PCT Int. Appl., **WO 2016/038631 A1**, **2016**.
9. **Gaikwad, Shahaji. R.**; and Chikkali, Samir. H. **US10266621B2**, **2015**
10. **Gaikwad, Shahaji. R.**; Deshmukh, Satej.; Gonnade, Rajesh.; Chikkali, Samir. H.; **ACS Macro Lett.** **2015**, 4, 933-937. <https://pubs.acs.org/doi/10.1021/acsmacrolett.5b00562>
11. **Gaikwad, Shahaji. R.**; Deshmukh, Satej.; Chikkali, Samir. H.; **J. Poly. Sci. Part A: Polymer Chemistry** **2014**, 52, 1-6. <https://onlinelibrary.wiley.com/doi/full/10.1002/pola.26968>
12. Koshti, Vijay.; **Gaikwad, Shahaji. R.**; Chikkali, Samir. H.; **Coordination Chemistry Reviews** **2014**, 265, 52-73. <https://www.sciencedirect.com/science/article/pii/S0010854514000149>
13. Bhausheb. Rajput.; **Gaikwad, Shahaji. R.**; Menon Shamal. K.; Chikkali, Samir. H.; **Green Chem.** **2014**, 16, 3810-3818. <https://pubs.rsc.org/en/content/articlelanding/2014/gc/c4gc00543k#!divAbstract>