S. Sakthivel

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NIT Jamshedpur
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Education

Qualification	Board of Education/Institute/University	Year of Passing	% of Marks or CPI
Secondary Education	Board of Secondary Education - Tamil Nadu	1997	90.00
Higher Secondary Education	Board of Higher Secondary Education - Tamil Nadu	1999	86.17
B. Sc. Chemistry	Madurai Kamaraj University	2002	91.44
M. Sc. Chemistry	Madurai Kamaraj University	2004	78.22
Doctor of Philosophy (Ph.D.)	Indian Institute of Technology Guwahati	2012	8.54

Teaching Experience

1.Assistant Professor, NIT- Jamshedpur, 01-June 2018 - continuing

2. Temporary faculty, NIT - Jamshedpur, 01-August 2017 - 31- May 2018

3. Adhoc faculty, NIT - Andhra Pradesh, 28-July 2016 - 31-May 2017

Courses Taught

1. Physical Organic Chemistry (CHG-5112, I-M.Sc. Chemistry)
2. Pericyclic, Photochemistry and Heterocyclic chemistry (CHG-5117, II-M.Sc. Chemistry)
3. Organic Chemistry Lab (CHG-5124, II-M.Sc. Chemistry)
4. Corrosion Science and Engineering (CHG-7114, I-M.Tech)
5. Design of Corrosion Protection (CHG-7123, I-M.Tech)
6. Physical and Organic Chemistry (Organic part, CY201, II-B.Tech)
7. Chemistry (CY101, I-B.Tech)
8. Chemistry lab (CY102, I-B.Tech)

Research Experience

2012–2014: Post doctoral Fellow. (Organic Chemistry), *Technion Israel Institute of Technology*, Israel.

Project Title: " Nickel catalysed cross coupling reaction of geminal flurohalo compounds"

2008–2012: Ph. D. (Organic Chemistry), *Indian Institute of Technology Guwahati*, India.

Thesis Title: "Study of Asymmetric Cyanohydrin and Sulfoxidation Reactions, and Fluorometric Recognition of Zn^{2+} and Optically Active 2-Substituted Pyridines"

2005-2007: Junior and Senior Research Fellow (Material Chemistry), *Indian Institute of Petroleum- Dehra Dun*, India.

Project Title: "Synthesis and Characterization of Novel Vanadium Phosphate Phases and Their Evaluation as Catalysts for Selective Oxidation of Hydrocarbons"

Professional Qualifications

Expertise in Synthetic Organic Chemistry, NMR spectroscopy, HPLC, GC, GPC, FT-IR, Polarimeter, UV-vis spectrometer, Fluorescence spectrometer, Powder XRD, TGA-DSC, Transmission Electron Microscope (TEM), LC-MS, High Pressure Compact Reactor(Parr), Glove box Origin, Adobe illustrator, Chem Office, Scifinder Scholar.

Awards and Fellowships

1. Post doctoral fellowship from Israel council for higher education, Israel, October-**2013-2015**.
2. Awarded Senior Research Fellowship from Council for Scientific and Industrial Research, April 1, **2010**.
3. Awarded Junior Research Fellowship from Council for Scientific and Industrial Research April 1, **2008**-March 31, **2010**.
4. Qualified CSIR-UGC National Eligibility Test in June **2007**.
5. Qualified CSIR-UGC National Eligibility Test in June **2004**.
6. Received gold medal for securing university first rank in Master of Science.
7. Received gold medal for securing university first rank in Bachelor of Science.

Research Publications

1. X. Jiang, **S. Sakthivel**, K. Kulbitski, G. Nisnevich and M. Gandelman; Efficient Synthesis of Secondary Alkyl fluorides via Suzuki Cross-coupling Reaction of 1-Halo-1-fluoroalkanes; *J. Am. Chem. Soc.* **2014**, 136, 9548.

2. G. Bharathiraja, **S. Sakthivel**, M. Sengoden and T. Punniyamurthy; A Novel Tandem Sequence to Pyrrole syntheses by 5-endo-dig Cyclization of 1,3-Enynes With Amines; *Org. Lett.* **2013**, 15, 4996.
3. **S. Sakthivel** and T. Punniyamurthy; Fluorescent *OFF-ON* Polymer Chemosensor Bonded Alternatively with 1,4-Dioctyloxybenzene and (*R*,*R*)-Salen for Cascade Zn^{2+} and Chiral Recognition; *Tetrahedron:Asymmetry* **2012**, *23*, 570.
4. **S. Sakthivel**, S. Jammi and T. Punniyamurthy; Fluorescent Non-linear Chiral Polymer Chemosensor Bonded Alternatively with 1,4-Diethynyl-2,5-dioctyl-oxybenzene and (*R*,*R*)-Salen for Zn^{2+} Recognition; *Tetrahedron:Asymmetry* **2012**, *23*, 101.
5. **S. Sakthivel** and T. Punniyamurthy; Chiral Linear Polymers Bonded Alternatively with Salen and 1,4-Dialkoxybenzene: Synthesis and Application for Ti-Catalyzed Asymmetric TMSCN Addition to Aldehydes; *Tetrahedron:Asymmetry* **2010**, *21*, 2834.
6. S. Jammi, S. Krishnamurthy, P. Saha, D. S. Kundu, **S. Sakthivel**, Md. A. Ali, R. Paul and T. Punniyamurthy; Cu_2O Nanoparticles Catalyzed *N*-Arylation of Amides and Imidazoles and *S*-Arylation of Thiols with Aryl Iodides; *Synlett* **2009**, 3323 .
7. S. Jammi, Md. A. Ali, **S. Sakthivel**, L. Rout, T. Punniyamurthy; Synthesis, Structure, and Application of Self-Assembled Copper(II) Aqua Complex by H-Bonding for Acceleration of the Nitroaldol Reaction on Water. *Chem. Asian. J.* **2009**, *4*, 314.
8. S. Jammi, S. **Sakthivel**, L. Rout, T. Mukherjee, S. Mandal, R. Mitra, P. Saha and T. Punniyamurthy; CuO Nanoparticles Catalyzed *C-N*, *C-O*, and *C-S* Cross-Coupling Reactions: Scope and Mechanism; *J. Org. Chem.* **2009**, *74*, 1971.
9. S. Jammi, P. Saha, S. Sanyashi, **S. Sakthivel** and T. Punniyamurthy; Chiral Binuclear Copper(II) Catalyzed Nitroaldol Reaction: Scope and Mechanism. *Tetrahedron* **2008**, *64*, 11724.
10. A. Datta, **S. Sakthivel**, Maninder Kaur, A. M. Venezia, G. Pantaleo, A. Longo; Novel transformations amongst mesostructured VPO phases synthesized through surfactant assisted organization from an exfoliated solution of $VOPO_4 \cdot 2H_2O$. *Microporous and Mesoporous Materials* **2010**, *128*, 213.

Conferences and Workshops Attended/Presented

1. Effective teaching and evaluation methods in engineering education, NIT-Andhra, Tadepalligudem. April 1-2, **2017.**
2. The 79th annual meeting of the Israel Chemical Society, Dan Panorama hotel, Israel. February 4-5, **2014**.
3. **S. Sakthivel** and T. Punniyamurthy. Chiral Polymer Bonded Alternatively (*R*,*R*)-Salen and 1,4-Dioctyloxybenzene: Synthesis and Application as *OFF-ON* Fluorescent Chemosensor for Zn^{2+} and Chiral Recognition; Photochemistry and Luminescence, *Indian Institute of Technology Guwahati*, Guwahati, March 9-10, **2012.**
4. **S. Sakthivel** and T. Punniyamurthy. Fluorescent *OFF-ON* Polymer Chemosensor Bonded Alternatively 1,4-Dioctyloxybenzene and (*R*,*R*)-Salen for Cascade Zn^{2+} and Chiral Recognition; 7th Junior National Organic Symposium Trust, *Indian Institute for Science and Educational Research* Mohali, Mohali, December 15-18 , **2011**.
5. **S. Sakthivel** and T. Punniyamurthy. Synthesis and Application of Chiral Poly(Ti-Salen) for Asymmetric TMSCN Addition to Aldehydes; 6th Junior National Organic Symposium Trust, *University of Hyderabad*, Hyderabad, January 28-31, **2011**.
6. **S. Sakthivel** and T. Punniyamurthy. Synthesis and Application of Chiral Poly(Ti-Salen) for Asymmetric TMSCN Addition to Aldehydes; Frontier in Chemical Sciences 2010, *Indian Institute of Technology Guwahati*, Guwahati, December 3-4, **2010.**
7. **S. Sakthivel** and A. Datta. Synthesis of a Novel VPO Phase Through Surfactant Assisted Organization From an Exfoliated Solution of $VOPO_4.2H_2O$; Catalysis for Future Fuels, 18th National Symposium and Indo-US seminar on Catalysis, *Indian Institute of Petroleum Dehra Dun*, April 16-18, **2007**.
8. The 7th Orientation Programme in Catalysis for Research Scholars, *Indian Institute of Technology Madras*, Chennai, November 17-December 7, **2006**.
9. National Workshop on Catalysis for Energy, *Catalysis Society of India and Banaras Hindu University*, Banaras, February 23-25, **2006.**

Patent

1. A. Datta, **S. Sakthivel** and J. Satyarthi "Process for the liquid phase selective hydroxylation of benzene" (patent no: **US 7586014B2**, dated 8 sep. **2009**)