



Dr. E. M. Mothi

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Areas of Research

Porphyrin Chemistry | Dye Chemistry | Synthetic Organic Chemistry | NMR Spectroscopy | Luminescence | Crystal Structure | PDT | Heterocyclics | Inorganic and Organometallic Synthesis | Supramolecular Chemistry

Academic Background

M.Sc., Govt. College, Kumbakonam (2001)

Ph.D., School of Chemistry, Bharathidasan University, Tiruchirappalli (2007)

Professional Experience

- Research Fellow

Université de Neuchâtel, Institut de chimie (ICH), Neuchâtel, Switzerland (Jul 2004 – Oct 2006)

- Postdoctoral Fellow

Université de Neuchâtel, Institut de chimie (ICH), Neuchâtel, Switzerland (Mar 2007 – Oct 2007)

- Postdoctoral Fellow

Indian Institute of Technology Bombay, Department of Chemistry Mumbai, India (Feb 2008 – Oct 2009)

- Postdoctoral Fellow

Trinity College Dublin, School of Chemistry, Dublin, Ireland (Nov 2009 – Apr 2012)

- Associate Professor

Saveetha University, Chennai, India (July 2012 – Apr 2014)

Awards and Scholarships

- * **2013** DST-SERB Young Scientist Grant award, Govt. of India, New Delhi
- * **2012** SFI Research Fellow, Ireland
- * **2009** IRC Empower Postdoctoral Fellowship, Ireland
- * **2008** Institute Postdoctoral Fellowship, IIT-Bombay, India
- * **2007** State Fellowship, Neuchatel, Switzerland
- * **2004** Swiss Government Excellence Scholarship, Switzerland

Publications

International Journals : 20

Conference Proceedings: 10 (International)
3 (National)

Representative Publications:

- Lead Structures for Applications in Photodynamic Therapy. 5. Synthesis and Biological Evaluation of Water Soluble Phosphorus(V) 5,10,15,20-Tetraalkylporphyrins for PDT. Aoife A. Ryan, Mothi M. Ebrahim*, Rosine Petitdemange, Gisela M. Vaz, Edyta Paszko, Natalia N. Sergeeva, Mathias O. Senge*, ***Photodiagnosis and Photodynamic Therapy***, 2014, 11,510-515.
- Silyl nitronate 1,3-dipolar cycloaddition reactions with meso-tetraarylporphyrins, Mothi M. Ebrahim, M. Moreau and M. O. Senge, ***Heterocycles***, 2011, 83, 627-630
- Mercury(II) complexes of stabilized phosphine-phosphonium ylide derived from bis(diphenylphosphino)methane: Synthesis, spectra and crystal structures, Mothi M. Ebrahim, K. Panchanatheswaran, A. Neels and H. Steockli-Evans, ***J. Organomet. Chem.*** 2009, 694, 643.
- Synthesis of monoorganotin(IV) chloride complexes of *cis*-1,2-bis(diphenyl- phosphino)ethylene: Solution and Solid State Structures, Mothi M. Ebrahim, H. Steockli-Evans and K. Panchanatheswaran, ***J. Organomet. Chem.***, 2007, 692, 2168.

Ongoing funded project

Project Title : Designing novel water-soluble/amphiphilic phosphorus(V) porphyrins for potential applications in medicine, bioimaging and biomimetics

Funding Scheme : DST SERB Young Scientist Startup Grant

Amount Sanctioned : Rs. 21,74,000

Duration : 3 Years (Oct 2014 – Sep 2017)

Sanction No : SB/FT/CS-157/2012 dated 30.7.2014

Research Supervision

M.Sc. 7 (International)
Ph.D. 1 (currently pursuing)

Professional Memberships held

Swiss Chemical Society, American Chemical Society, Society for Porphyrins and Phthalocyanins

Countries Visited

Switzerland, France, USA, UK, Ireland, Greece