Dr. P. SILVIYA REETA

Assistant Professor (Aided),
Department Of Chemistry,
Lady Doak College (Autonomous),
Madurai-625002,
Tamil Nadu, India.
Email: silviyareeta@ldc.edu.in

RESEARCH INTEREST

Dye sensitized solar cells (DSSC), synthesis of tetrapyrroles, donor-acceptor model systems, supramolecular photochemistry, bio-based functional materials, sensors and optical devices.

EDUCATIONAL BACKGROUND

PhD Chemistry **Dec 2015**

CSIR-Indian Institute of Chemical Technology, Hyderabad, India.

(Certified by JNTU, Hyderabad, India.)

Thesis Title: "Porphyrin Based Donor-Acceptor Model Systems And Photosensitizers For Dye Sensitized Solar Cell Applications".

MSc Chemistry **Apr 2007**

The American College (Autonomous), Madurai.

(Affiliated to MKU, Tamilnadu, India).

BSc Chemistry **Apr 2005**

Sri Meenakshi Govt. College for Women, Madurai.

(Affiliated to MKU, Tamilnadu, India.)

OTHER RESEARCH EXPERIENCE

Junior Research Fellow **Aug 2007 – May 2008**

International Advanced Research Center For Powder Metallurgy

And New Materials (ARCI), Hyderabad, India.

Visiting Researcher **Mar 2014 – Dec 2014**

Faculty of Engineering and natural Sciences, Tampere University, Tampere, Finland

TEACHING EXPERIENCE -2 years

Assistant Professor **Jul 2015 – Mar 2016**

Department of Chemistry, Kalasalingam University (Deemed to be), Krishnankovil India.

Assistant Professor (SF) **Jul 2021 – Jul 2022**

Department of Chemistry, Fatima College (Autonomous), Madurai, India.

Assistant Professor (Aided) **Aug 2022 – Till Date**

Department of Chemistry, Lady Doak College (Autonomous), Madurai, India.

LIST OF PUBLICATIONS -7

1. One-Pot Synthesis of β-Carboxy Tetra Aryl Porphyrins: Potential Applications to Dye-Sensitized Solar Cells, **Reeta, P.S.**; Jaipal, K.; Giribabu, L. *Tetrahedron Lett.* **2010**, *51*, 2865-2867. https://doi.org/10.1016/j.tetlet.2010.03.088. (IF: 2.415)
2. Picosecond Optical Nonlinearities of Unsymmetrical Alkyl and Alkoxy Phthalocyanines Studied Using Z-Scan Technique, Anusha, P.T.; **Reeta, P.S.**; Giribabu, L.; Tiwari, S.P.; Rao. S.V. *Materials Lett.* **2010**, *64*, 1915-1917. http://dx.doi.org/10.1016/j.matlet.2010.06.004. (IF: 3.423).
3. Bis-Porphyrin-Anthraquinone Triads: Synthesis, Spectroscopy and Photochemistry, Giribabu, L.; **Reeta, P. S.**; Ravi Kumar, K.; Srikanth, M.; Soujanya, Y. *J .Phys. Chem A* **2013**, *117*, 2944 - 2951. http://dx.doi.org/10.1021/jp312134a. (IF: 2.781)
4. β-pyrrole substituted porphyrin-pyrene dyads using vinylene spacer: Synthesis, characterization and photophysical properties', **Reeta, P.S.** ; RaviKumar, K.; Giribabu, L . *J. Chem. Sci.* **2013**, *125*, 259–266. https://doi.org/10.1007/s12039-013-0390-1. (IF: 1.573)
5. Excited state energy and photoinduced electron transfer reactions in Ge(IV) Corrole-Porphyrin heterodimers, Giribabu, L;, Jaipal, K.; Ravi Kumar K**; Reeta, P.S.** *J. Luminescence* **2013**, *145*, 357-363. http://dx.doi.org/10.1016/j.jlumin.2013.08.009. (IF: 4.171)
6. Ethynyl Thiophene Appended Unsymmetrical Zinc Porphyrin Sensitizers for Dye-Sensitized Solar Cells: Synthesis, Spectral, Electrochemical, and Photovoltaic Properties, **Reeta, P.S.;** Giribabu, L.; Senthilarasu, S.; Hsu, M. H.; Kumar, D. K.; Hari, M. U.; Robertson, N.; Hewat, T. *RSC Adv* **2014**, *4*, 14165-14175. 10.1039/C3RA47948J. (IF: 4.036)
7. Photophysical Properties Of Sn(IV)tetraphenylporphyrin-pyrene Dyad With a β-vinyl Linker, **Reeta, P.S**.; Adis, K.; Tejaswi, J.; Fawzi, A.C.; Vladimir, C.; Nikolai, V.T.; Giribabu, L.; Helge, L. *J. Porphyrins Phthalocyanines* **2015**, *19*, 288. https://www.worldscientific.com/doi/10.1142/S1088424615500108. (IF: 1.816)

FELLOWSHIPS /AWARDS

- CSIR-Senior Research Fellowship, India. **Apr 2011**
- CSIR-National Eligibility Test for PhD research Fellowship, India. **Dec 2007**
- Junior ARCI Fellowship, ARCI, Hyderabad, India. **Aug 2007**

CONFERENCE/ WORSHOPS

1. "Effect of structural modifications on a series of porphyrin based dye sensitized solar cell efficiencies", **P. Silviya Reeta**, P. Samuel at the **National conference on Advanced functional materials** (NCAFM-2015), SSN college of Engineering, Chennai on Dec 2015 and was **awarded 2nd prize for best oral presentation**.
2. "*Structural modification of porphyrin dyes for green energy devices*", **P. Silviya Reeta,** L. Giribabu, in the "International Conference on Green Technology (ICGET- 2013)" organized

by Sastra University, Thanjavur, held during 26th -27th June 2013 and was presented with **"Best oral presentation award".**

3. "*One pot synthesis of β-carboxy tetraaryl porphyrins for dye sensitized solar cell applications*", **P. Silviya Reeta,** L. Giribabu, at "APEX Excitonic Solar Cell Symposium and APEX Project Meeting", **organized at Imperial College, London, UK,** held during 6th -8th July 2011 **(Poster presentation).** Followed by "Workshop on Excitonic Solar cells", organized at Loughborough University, UK (9th – 12th July 2011).

4. "*Tetrapyrrolic dyes for dye sensitized solar cell applications*", **P. Silviya Reeta,** L. Giribabu in the National Conference on "Recent trends In Organic Synthesis (RTOS)" organized by Bharathidasan University, Tiruchirapalli, Tamilnadu, held during 24th – 26th Feb 2011. **(Poster presentation).**

5. "*Electrochemical Deposition of Metals and Furnace profiling*", **P. Silviya Reeta**, J. R. Bosco Bharathy, S. Jemima Balaselvi Juliana, in the **UGC sponsored National Seminar on** "*Frontier Areas in Chemistry*" at Thiyagarajar College, Madurai, held during 1st – 2nd March 2007. **(Oral & poster presentation).**

6. Participated in the **"W*orkshop on Chemical Thermodynamics*"** organized by Indira Gandhi center for Atomic Research (**IGCAR**), Kalpakkam, Chennai, held during 22nd – 26th Aug 2006.
