

PANRUTI - 607 106.

#### DEPARTMENT OF CHEMISTRY

# FACULTY PROFILE

# **Dr.P.SIVA KARTHIK**

Assistant Professor/Chemistry Department of Science & Humanities

### **General Information**

Name	: Dr.P.Siva Karthik
Designation	: Assistant Professor
Date of Joining	: 30.09.2009
Date of Birth	: 05.05.1981
Official email. ID	: <u>psk@ucep.edu.in</u>
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#### **Educational Information**

Ph.D.,	2018	Anna University
M.Phil.,	2008	Madurai Kamaraj University
M.Sc.,	2003	Madurai Kamaraj University
B.Sc.,	2001	Madurai Kamaraj University

## **Title of the Thesis**

Investigations on effect of metal ion dopants on structural, optical and photocatalytic activity of  $SnO_2$ ,  $WO_3$  & ZnO nanoparticles

#### **Research Interests**

Metal oxide nanoparticles, Dye sensitized solar cells, Gas sensor materials

## Teaching/Research/Industrial Experience

Assistant Professor in University College of Engineering, Panruti from 30.09.2009 to till date. Lecturer in Vivekanandha College, Tiruchengode from 29.05.2006 to 25.09.2009 Lecturer in N.M.S.S.V.N. College, Madurai from 07.07.2004 to 27.05.2006.

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#### **Papers Published in International Journals**

1.**P. Siva Karthik**, V.Thangaraj, "Tin oxide nanoparticle catalysed one-pot synthesis of 3,4 dihydropyrimidinones" *J.Chem. Pharm. Sci.* 4, 146-147 (**2014**).

2. K.Perumalraj, **P.Siva Karthik**, AP.Uthirakumar, V.Thangaraj, "Cytotoxicity assessment of synthesized Nickel oxide nanoparticles on MCF- 7 and A-549 cancer cell lines" *J.Chem. Pharm. Sci. 4*, 269-271 (**2014**).

3.K. Perumalraj, V.Thangaraj, AP Uthirakumar, **P.Siva Karthik**, "Synthesis, characterization and photocatalytic study of Nickel Oxide nanoparticles, "*International Journal of Science and Technoledge*, 2(10), 113(**2014**).

4. **P.Siva Karthik**, V.Thangaraj, K.Perumalraj, J.Balaji, "Synthesis of Co doped tin oxide nanoparticles for photocatalytic degradation of synthetic organic dyes", *Digest Journal of Nanomaterials and Biostructures*, 11(3), 935-943(**2016**).

5. **P.Siva Karthik**, V.Thangaraj, M.Parthibavarman,"A facile and one-pot synthesis of pure and transition metals (M=Co &Ni) doped WO<sub>3</sub> nanoparticles for enhanced photocatalytic performance", *Journal of Materials Science: Materials in Electronics*, 28(8), 5990-5996(**2017**).

6. S.Kumaresan, K.Vallaperuman, S.Sathishkumar, M.Karthik, **P.Siva Karthik**, "Synthesis and systematic Investigations of Al and Cu-doped ZnO nanoparticles and its structural, optical and photocatalytic properties" *Journal of Materials Science: Materials in Electronics*, 28(13), 9199-9205 (**2017**).

**7. P.Siva Karthik,** V.Thangaraj, S.Kumaresan, K.Vallaperuman, "Comparative study of Co and Ni substituted ZnO nanoparticles: synthesis, structural, optical and photocatalytic activity", *Journal of Materials Science: Materials in Electronics*, 28(14), 10582-10588 (**2017**).

8. K.K.Saravanan, **P.Siva Karthik**, "Ru-Dye Grafted CuS and Reduced Graphene oxide (CuS/rGO) Composite: An efficient and Phototunable electrode for Dye sensitized solar cells" *Journal of Cluster Science*, 31(2), 401-407, (**2020**)

9. K.K.Saravanan, **P.Siva Karthik**, P.Ramnivas Mirtha, J.Balaji, B.Rajeshkanna "A one-pot hydrothermal-induced PANI/SnO<sub>2</sub> and PANI/SnO<sub>2</sub>/rGO ternary composites for high performance chemiresistive-based H<sub>2</sub>S and NH<sub>3</sub> gas sensors", *Journal of Materials Science: Materials in Electronics*, 31(11), 8825-8836(**2020**).

**10.** P.Ramnivas Mirtha, J.Balaji, XCM.Sneha, **P.Siva Karthik**, D.Gajalakshmi, G.Vinitha, "Studies on growth, optical, dielectric and third-order nonlinearity of 4-methyl N-(4-chlorobenzylidene)aniline (4CBT) crystal", *Journal of Materials Science: Materials in Electronics*, 31(20), 18234-18247(**2020**).

**11.** M.Durairasan, **P.Siva Karthik**, J.Balaji, B.Rajeshkanna, "Design and Fabrication of WSe2/CNTs hybrid network: A highly efficient and stable electrodes for dye sensitized solar cells(DSSCs)", *Diamond and Related Materials*, 111, 108174(**2021**)

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# Papers Presented in National /International Conferences

S.No	Programme Name	Level	Date and Year	Place
1	International Conference on Physics of advanced materials and molecules	International	2020 January 30 & 31	Department of Physics, Dr.Ambedkar Govt. Arts College, Chennai.
2	International Conference on Advanced materials for sustainable energy and sensors	International	2019 Septermber 16 & 17	Department of Physics, Alagappa University, Karaikudi.
3	National seminar on innovations at Frontier areas of physical sciences	National	2019, February 13 & 14	P.G Department of Physics and Chemistry, Vivekanandha Arts and Science College for women, Sankari
4	Chemistry of Advanced materials and its biomedical applications	National	2018 April 20 & 21	Department of Chemistry, Kumaraguru College of Technology, Coimbatore.
5	International Conference on Computing, Communication and Drastic innovations in energy thrive	International	2018 Feb28 & March 1	University College of Engineering, Panruti.
6	National Conference on New energy Materials for secure and sustainable Future	National	2018 November 01 & 02	Department of Physics, Thiru Kolanjiappar Government ArtsCollege, Vriddhachalam.
7	Strategic Shift in Business excellence for sustainable Development in indo- global Business and Technology.	International	2017 February 10	Sri Ganesh School of Business Management , Salem
8	Research Advances in Materials Science and Applications	National	2016 August 19 & 20	Department of Chemistry, Anna University, BIT Campus, Tiruchirappalli.
9	Green Engineering and Technologies for Sustainable Future	National	2014 December 5 & 6	Department of Petrochemical Technology, BIT Campus, Tiruchirappalli.
10	International Conference on Chemistry and Materials	International	2014 November 14& 15	Department of Chemistry, BIT Campus, Tiruchirappalli.

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11	International Conference on innovations and Future Research Dimensions on Nanobio Pharmaceutical Technology	International	2014 October 7 & 8	Department of Pharmaceutical Technology, BIT Campus,Tiruchirappalli.
12	Competency Building Strategies in Business and Technology for Sustainable Development	International	2013 February 22	Sri Ganesh School of Business Management , Salem
13	New Vistas and Challenges in Chemistry	National	2013 January 23 to 25	Department of Chemistry, Sathyabama University, Chennai.

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