



**Dr. T. STALIN**  
**Assistant professor**

### Contact

Address : Department of Industrial Chemistry  
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### Academic Qualifications M.Sc., M.Phil., Ph.D.

Ph.D., in Chemistry, 2008, **Annamalai University, Tamilnadu, India.**  
M. Phil., in Applied Chemistry, 2003, **Annamalai University, Tamilnadu, India.**  
M.Sc., in Chemistry, 2000, **Annamalai University, Tamilnadu, India.**

### Teaching Experience: 8 Years

### Research Experience: 10 Years

### Additional Responsibilities

1. International collaborative research committee member
2. Departmental Instruments Incharge

## Areas of Research

Physical Chemistry, Photo Chemistry, Solar cells

## Research Supervision / Guidance

Program of Study		Completed	Ongoing
Research	Ph.D.	07	02
	M.Phil.	12	01
Project	PG	29	03

## Publications

International		National		Others
Journals	Conferences	Journals	Conferences	Books / Chapters / Monographs / Manuals
40	75	02	150	-

Cumulative Impact Factor (as per JCR) :	100.15
h-index :	14
i10 index :	17
Total Citations :	595

## Funded Research Projects

### Completed Projects

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	AURF	2009	2010	Fluorescence biosensor based on insoluble $\beta$ -cyclodextrin polymer for direct determination of cholesterol and 2, 4- and 2, 6-dinitrophenols	64,000
2	UGC Govt. of India.	2011	2014	Development of newer modified electrodes using conducting polymer nano composites for dye Sensitized solar cells	7,23,800

3	DST Govt. of India.	2011	2014	Enhanced Host-guest electrochemical recognition of various organic pollutants using cyclodextrin in the presence of carbon nanotubes	21,20,000
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### Ongoing Projects

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1.	UGC Govt. of India.	2017	2018	Raman fellowships for postdoctoral research for Indian scholars in USA  <b>Title :</b> Improvements of Drug Properties by Cyclodextrin Complexation	Rs. 25,13,752.00.

### Distinctive Achievements / Awards

1. YOUNG SCIENTIST AWARD, Department of Science & Technology (INDIA) - SERC Fast Track 2011-1014.
2. Raman Fellowship for Post-Doctoral Research in USA for a period of 12 months at Department of Chemistry, University of Miami, USA, by the UGC, New Delhi.

### Events organized in leading roles

Number of Seminars / Conferences / Workshops / Events organized: 04

1. International Seminar on Frontier Areas in Chemical Technologies – 2016 (FACTs-2016), March 21 - 23, 2016, (**Joint secretary**).
2. National Seminar on Frontier Areas in Chemical Technologies – 2015 (FACTs-2015), March 6 - 7, 2015, (**Organizing secretary**).
3. National seminar on Recent Advances in Textile and Electrochemical Sciences, Alagappa University (RATES-2012), 22 and 23, March-2012, (**Convener**).
4. National seminar on Recent Advances in Textile and Electrochemical Sciences, Alagappa University (RATES-2009), 4 and 5, Dec-2009, (**Co-convener**).

### Events Participated (optional)

#### Conferences / Seminars / Workshops: 04

1. National seminar on “Contemporary applications in nuclear science & technology” (CANST-16), February 4<sup>th</sup> 2016, Department of Chemistry of Dhanalakshmi Srinivasan College of Arts & Science for Women, Perambalur, Tamilnadu, India.

**Title:** Preparation and characterization of the solar cell components and their application.

2. Department of Chemistry, JJ College Of Arts and Science, Pudukkottai, Tamilnadu, India.

**Title:** Photochemistry and their uses, on Feb-2016.

3. Chemstar club activity- Department of Chemistry, Cauvery College for Women, Tiruchirappalli, Tamilnadu, India, on 10.09.2015.
4. One day Seminar on "Current research scenario on supramolecular chemistry" organized by Department of Chemistry, Ananda college, Devakottai, Tamilnadu, India, on 25.02.2015.

### **Others**

1. Orientation Course for Teachers, 09.11.2010 to 06.12.2010, University of Madras, Chennai.
2. Refresher Course in Chemistry, 01.02.2014 to 21.02.2014, Bharathidasan University, Trichy.

### **Overseas Exposure / Visits**

1. USA

### **Membership in**

#### **Professional Bodies**

1. Life Member:  
Indian Science Congress Association, Kolkata (L14707), Life member.
2. Life Member:  
Solid State Chemistry, Jammu and Kashmir, Life member.

#### **Editorial Board**

1. Industrial & Engineering Chemistry Research(ACS), Reviewer
2. J. of Molecular Structure, Reviewer
3. J. Inclusion Phenomena and Macrocyclic Chemistry, Reviewer ect.,

#### **Academic Bodies (such as Board of Studies etc.)**

1. Department of Industrial Chemistry, Alagappa University, Karaikudi.
2. Department of Chemistry, JJ College Of Arts and Science, Pudukkottai, Tamilnadu

### **Resource persons in various capacities**

Number of Invited / Special Lectures delivered: 06

## Others

1. Articles published in Newspapers / Magazines : 01
2. No. of PhD Thesis evaluated : 01
3. No. of PhD Public Viva Voce Examination conducted : 06

## Recent Publications

1. K Srinivasan, J. Vaheethabanu, P. Manisankar, **T. Stalin\***, (2011) Study of inclusion complex of  $\beta$ -Cyclodextrin and Ortho-Anisidine; Photophysical and Electrochemical behaviours, Journal of Molecular Structure, 987 (2011) 214-224. [Elsevier] (Impact Factor: 1.602).
2. K. Srinivasan, K. Kayalvizhi, K. Sivakumar, **T. Stalin\***, (2011) Study of inclusion complex of  $\beta$ -Cyclodextrin and Diphenylamine; Photophysical and Electrochemical behaviours, Spectrochimica. Acta Sec A, 79 (2011)169-178. [Elsevier] (Impact Factor: 2.353).
3. K. Srinivasan, **T. Stalin\***, K. Sivakumar, (2012) Spectral and electrochemical study of host-guest inclusion complex between 2,4-dinitrophenol and  $\beta$ -cyclodextrin, Spectrochimica Acta Part A, 94 (2012) 89-100.[Elsevier] (Impact Factor: 2.353).
4. K. Srinivasan, **T. Stalin\***, (2012) Sorption onto insoluble  $\beta$ -cyclodextrin polymer for 2,4-dinitrophenol, Journal of Inclusion Phenomena and Macrocyclic Chemistry DOI 10.1007/s10847-011-0059-7. [Springer] (Impact Factor: 1.488).
5. V. Rajasekharan, **T. Stalin**, S. Viswanathan, P. Manisankar, (2013) Electrochemical Evaluation of Anticorrosive Performance of Organic Acid Doped Polyaniline Based Coatings, Int. J. Electrochem. Sci., 8 (2013) 11327-11336. [Electrochemical Science Group] (Impact Factor: 1.50).
6. K. Sivakumar, V. Bhakyajothi, M. Parameswari, D. Prema, **T. Stalin**, (2013) Spectral Studies on the Supramolecular Assembly of 1H2NA:  $\beta$ -CD Complex and its Analytical Application as Chemosensor for the Selective Sensing of  $\text{Cr}^{3+}$ , Polycyclic Aromatic Compounds, 33:3 (2013) 221-235. [Taylor & Francis] (Impact Factor: 1.044).
7. K. Sivakumar, G. Hemalatha, M. Parameswari, **T. Stalin**, (2013) Spectral, electrochemical and docking studies of 5-indanol: $\beta$ -CD inclusion complex, Physics and Chemistry of Liquids: An International Journal, 51:5, (2013) 567-585. [Taylor & Francis] (Impact Factor: 0.813).

8. S. Mohandoss, **T. Stalin\***, (2013) Study on inclusion complex behaviours of L-Tyrosine and  $\beta$ -Cyclodextrin by Cyclic Voltammetric technique using Glassy carbon electrode, International Journal of Advanced Research, 1(5) (2013) 381-396. **(Impact Factor: 5.336)**.
9. A. Shanmuga Priya, J. Sivakamavalli, B. Vaseeharan, **T. Stalin\***, (2013) Improvement on dissolution rate of inclusion complex of Rifabutin drug with  $\beta$ -cyclodextrin, International Journal of Biological Macromolecules 62 (2013) 472– 480. **[Elsevier] (Impact Factor: 3.016)**.
10. K. Paramasivaganesh, K. Srinivasan, A. Manivel, S. Anandan, K. Sivakumar, S. Radhakrishnan, **T. Stalin\***, (2013) Studies on inclusion complexation between 4,4-dihydroxybiphenyl and  $\beta$ -cyclodextrin by experimental and theoretical approach, Journal of Molecular Structure 1048 (2013) 399–409. **[Elsevier] (Impact Factor: 1.602)**.
11. K. Srinivasan, **T. Stalin\***, (2013) Studies on inclusion complexes of 2,4-dinitrophenol, 2,4-dinitroaniline, 2,6-dinitroaniline and 2,4-dinitrobenzoic acid incorporated with  $\beta$ -cyclodextrin used for a novel UV absorber for ballpoint pen ink, Journal of Inclusion Phenomena and Macrocyclic Chemistry, 750, DOI 10.1007/s10847-013-0304-3. **[Springer] (Impact Factor: 1.488)**.
12. C. Menaka, K. Sakthi Velu, P. Manisankar, **T. Stalin\***, (2013) Conductivity, structural and electrochemical behavior of plasticized polymer electrolytes for dye-sensitised solar cell, Indian Journal of Chemistry, 52A (2013) 467-472. **(Impact Factor: 0.851)**.
13. K. Srinivasan, **T. Stalin\***, A. Shanmugapriya, K. Sivakumar, (2013) Spectroscopic and electrochemical studies on the interaction of an inclusion complex of  $\beta$ -cyclodextrin with 2,6-dinitrophenol in aqueous and solid phases, Journal of Molecular Structure, 1036 (2013) 494–504. **[Elsevier] (Impact Factor: 1.602)**.
14. R. Kavitha, **T. Stalin\***, (2014) A highly selective chemosensor for colorimetric detection of  $Hg^{2+}$  and fluorescence detection of pH changes in aqueous solution, Journal of Luminescence, 149 (2014) 12–18. **[Elsevier] (Impact Factor: 2.719)**.
15. **T. Stalin\***, K. Srinivasan, K. Sivakumar, (2014) Study of the cyclodextrin and its complexation with 2,4-dinitrobenzoic acid through photophysical properties and 2D NMR spectroscopy, Journal of Molecular Structure, 1060 (2014) 239–250. **[Elsevier] (Impact Factor: 1.602)**.
16. **T. Stalin\***, K. Srinivasan, K. Sivakumar, S. Radhakrishnan, (2014) Preparation and characterizations of solid/aqueous phases inclusion complex of 2, 4-dinitroaniline with  $\beta$ -cyclodextrin, Carbohydrate Polymers, 107 (2014) 72–84. **[Elsevier] (Impact Factor: 4.568)**.
17. K. Srinivasan and **T. Stalin\***, (2014) Inclusion complexes of  $\beta$ -cyclodextrin-dinitrocompounds as UV absorber for ballpoint pen ink, Spectrochimica Acta Part A, 129 (2014) 551–564. **[Elsevier] (Impact Factor: 2.353)**.

18. K. Srinivasan and **T. Stalin\***, (2014) Study of inclusion complex between 2,6-dinitrobenzoic acid and  $\beta$ -cyclodextrin by  $^1\text{H}$  NMR,  $2\text{D}^1\text{H}$  NMR (ROESY), FT-IR, XRD, SEM and photophysical methods, *Spectrochimica Acta Part A*, 130 (2014) 105–115. **[Elsevier] (Impact Factor: 2.353)**.
19. K. Srinivasan, K. Sivakumar, S. Radhakrishnan, **T. Stalin\***, (2014) 2, 6-dinitroaniline and  $\beta$ -cyclodextrin inclusion complex properties studied by different analytical methods, *Carbohydrate Polymers* 113 (2014) 577–587. **[Elsevier] (Impact Factor: 4.568)**.
20. M. Maniyazagan, S. Mohandoss, K. Sivakumar and **T. Stalin\***, (2014) N-phenyl-1-naphthylamine/ $\beta$ -cyclodextrin inclusion complex as a new fluorescent probe for rapid and visual detection of  $\text{Pd}^{2+}$ , *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 133 (2014) 73–79. **[Elsevier] (Impact Factor: 2.353)**.
21. R. Kavitha and **T. Stalin\***, (2015) Naphthalenediols: A new class of novel fluorescent chemosensors for selective sensing of  $\text{Cu}^{2+}$  and  $\text{Ni}^{2+}$  in aqueous solution, *Journal of Luminescence* (2015) 313–321. **[Elsevier] (Impact Factor: 2.719)**.
22. S. Mohandoss, M. Maniyazagan and **T. Stalin\***, (2015) A highly selective dual mode detection of  $\text{Fe}^{3+}$  ion sensing based on 1,5-Dihydroxyanthraquinone in the presence of  $\beta$ -cyclodextrin, *Materials Science and Engineering C*, 48 (2015) 94–102. **[Elsevier] (Impact Factor: 3.230)**.
23. C. Menaka, P. Manisankar, **T. Stalin\***, (2015). In situ electrochemical synthesis of poly(o-anisidine) counter electrode for dye sensitized solar cell, *Journal of Applied Polymer Science*, 132(23) (2015) 42041–47, **[John Wiley & Sons, Inc.] (Impact Factor: 1.77)**.
24. C. Menaka, P. Manisankar, **T. Stalin\***, (2015). Preparation and characterization of poly(o-anisidine) with the influence of surfactants on stainless steel by electrochemical polymerization as a counter electrode for dye-sensitized solar cells, *Journal of Applied Polymer Science* 132(31) (2015) 42310–17, **[John Wiley & Sons, Inc.] (Impact Factor: 1.77)**.
25. S. Mohandoss, J. Sivakamavalli, B. Vaseeharan and **T. Stalin\***, (2015). Fluorometric sensing of  $\text{Pb}^{2+}$  and  $\text{CrO}_4^{2-}$  ions through host-guest inclusion for human lung cancer live cell imaging, *RSC Advances*, 5 (2015) 101802, **[Royal Society of Chemistry] (Impact Factor: 3.840)**.
26. K. Sivakumar, T.R. Ragi, D. Prema, **T. Stalin**, (2016). Experimental and theoretical investigation on the structural characterization and orientation preferences of 2-hydroxy-1-naphthoic acid/ $\beta$ -cyclodextrin host-guest inclusion complex, *Journal of Molecular Liquids* 218 (2016) 538–548. **[Elsevier] (Impact Factor: 2.515)**.
27. K. Sivakumar, M. Parameswari and **T. Stalin**, (2016). Etodolac: $\beta$ -cyclodextrin inclusion complex as a novel fluorescent chemosensor probe for  $\text{Ba}^{2+}$ , *Journal of Carbohydrate Chemistry*, 35 (2016) 118–130. **[Taylor & Francis] (Impact Factor: 1.50)**.

28. S. Mohandoss, J. Sivakamavalli, B. Vaseeharan and **T. Stalin\***, (2016). Host-guest molecular recognition based fluorescence *On-Off-On* chemosensor for nanomolar level detection of  $\text{Cu}^{2+}$  and  $\text{Cr}_2\text{O}_7^{2-}$  ions: application in XNOR logic gate and human lung cancer living cell imaging, *Sensors and Actuators B* 234 (2016) 300–315. **[Elsevier] (Impact Factor: 4.758)**.
29. M. Maniyazagan, R. Mariadasse, J. Jeyakanthan, N. K. Lokanath, S. Naveen, K. Premkumar, P. Muthuraja, P. Manisankar, **T. Stalin\***, Rhodamine based “turn-on” molecular switch FRET–sensor for cadmium and sulfide ions and live cell imaging study, *Sensors and Actuators B* 238 (2017) 565–577, **[Elsevier] (Impact Factor: 4.758)**.
30. M. Maniyazagan, C. Rameshwaran, R. Mariadass, J. Jeyakanthan, K. Premkumar and **T. Stalin\***, Fluorescence Sensor for  $\text{Hg}^{2+}$  and  $\text{Fe}^{3+}$  ions using 3,3'-Dihydroxybenzidine: $\alpha$ -Cyclodextrin Supramolecular Complex: Characterization, *in-silico* and Cell Imaging Study, *Sensors and Actuators B*, <http://dx.doi.org/10.1016/j.snb.2016.09.093>, **[Elsevier] (Impact Factor: 4.758)**.
31. S. Mohandoss and **T.Stalin\***, (2017). Photochemical and computational studies of inclusion complexes between  $\beta$ -cyclodextrin and 1,2-dihydroxyanthraquinones, *Photochemical & Photobiological Sciences*, DOI: 10.1039/c6pp00285d, **[Royal Society of Chemistry] (Impact Factor: 2.235)**