



Dr. S. Thambidurai

Professor

Contact

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Academic Qualifications: M.Sc., Ph.D.

Teaching Experience: 17 Years

Research Experience: 15 Years

Additional Responsibilities

1. NSS Programme Officer
2. M.Phil.Chemistry (Week-End) Coordinator

Areas of Research

1. Textile Chemistry
2. Bio-nanomaterials

Research Supervision / Guidance

Program of Study		Completed	Ongoing
Research	Ph.D.	9	4
	M.Phil.	30	2
Project	PG	40	3

Publications

International		National		Others
Journals	Conferences	Journals	Conferences	Books / Chapters / Monographs / Manuals
39	37	04	50	01

Cumulative Impact Factor (as per JCR) :	74.868
h-index :	08
i10 index :	08
Total Citations :	254

Funded Research Projects

Completed Projects

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	UGC	2010	2013	Optimization study of salt-free reactive dyeing and fixing of seaweed nano particles on cotton fabric for permanent antibacterial finishing	7.71
2	AURF	2010	2011	Synthesis of Zinc Oxide Blended Chitosan Nanoparticles for Antibacterial and UV-Protection on Cotton Fabric	0.64

Events organized in leading roles

Number of Seminars / Conferences / Workshops / Events organized: 03

1. Conference: Recent Advances in Textile and Electrochemical Sciences (RATES-2007), on June 1-2, 2007-Organizing Secretary
2. Workshop: Green Process Techniques for Industrial Applications (Greptia-2009), on March 20-21, 2009-Coordinator
3. Workshop: Materials Chemistry for Future Industrial Development, (MATCH FIND-2017), on 6-7th January, 2017- Organizing Secretary

Membership in

Professional Bodies

1. Life Member: The Indian Science Congress Association

Academic Bodies (such as Board of Studies etc.,)

1. University of Madras: 22.12.1999 -- 21.12.2002 (B.Tech. Textile)
2. Alagappa University: 12.05.2009 -- 11.05.2012 (M.Sc. Chemistry)
3. Alagappa University : 2017 to 2020 M.Phil., Chemistry (Affiliated colleges)
4. Alagappa University: 2017 to 2020 B.Sc., Chemistry (Affiliated colleges)

Resource persons in various capacities

Number of Invited / Special Lectures

delivered: 05 Others

1. No. of PhD Thesis evaluated : 15
2. No. of PhD Public Viva Voce Examination conducted : 14

Recent Publications

1. Thambidurai, S., & Pandimurugan, R. (2020). Antibacterial Activity of Seaweed-ZnO Composites. *Encyclopedia of Marine Biotechnology*, 4, 2443-2452.
2. Suresh, S., Ilakiya, R., Kalaiyan, G., Thambidurai, S., Kannan, P., Prabu, K. M., ... & Kandasamy, M. (2020). Green Synthesis of Copper Oxide Nanostructures using Cynodon dactylon and Cyperus rotundus Grass Extracts for Antibacterial Applications. *Ceramics International*.
3. Revathi, T., & Thambidurai, S. (2019). Cytotoxic, antioxidant and antibacterial activities of copper oxide incorporated chitosan-neem seed biocomposites. *International journal of biological macromolecules*, 139, 867-878.
4. Karpuraranjith, M., & Thambidurai, S. (2018). Immobilization Effect of Morphological, Thermal and Optical Properties in Biotemplate on Zinc Oxide Nanocomposite from Chitosan. *International Journal of Nanoscience*, 17(03), 1760045.
5. Rajaboopathi, S., & Thambidurai, S. (2018). Evaluation of UPF and antibacterial activity of cotton fabric coated with colloidal seaweed extract functionalized silver nanoparticles. *Journal of Photochemistry and Photobiology B: Biology*, 183, 75-87. Revathi, T., & Thambidurai, S. (2018). Immobilization of ZnO on Chitosan-Neem seed composite for

enhanced thermal and antibacterial activity. *Advanced Powder Technology*, 29(6), 1445-1454.

6. Thambidurai, S., & Pandiselvi, K. (2018). Polyaniline/natural polymer composites and nanocomposites. In *Polyaniline Blends, Composites, and Nanocomposites* (pp. 235-256). Elsevier.
7. Karpuraranjith M, Thambidurai S, (2017), Hybrid structure of biotemplate-zinc-tin oxide for better optical, morphological and photocatalytic properties, *Semiconductor Science and Technology*, IOP Publishing, England, (In Press). (Impact factor: 2.098).
8. Rajaboopathi S, Thambidurai S, (2017), Heterostructure of CdO-ZnO nanoparticles intercalated on PANI matrix for better thermal and electrochemical performance, *Materials Science in Semiconductor Processing*, Elsevier, UK, 59, 56–67. (Impact factor: 2.264).
9. Karpuraranjith M, Thambidurai S, (2016), Biotemplate-SnO₂ particles intercalated PANI matrix: Enhanced photocatalytic activity for degradation of MB and RY-15 dye, *Polymer Degradation and Stability*, Elsevier, USA, 133, 108-118. (Impact factor: 3.12).
10. Pandimurugan R, Thambidurai S, (2016), Novel seaweed capped ZnO nanoparticles for effective dye photodegradation and antibacterial activity, *Advanced Powder Technology*, Elsevier, Netherlands, 27, 1062–1072. (Impact factor: 2.638).

5. Karpuraranjith M, Thambidurai S, (2016), Twist fibrous structure of CS–SnO₂–PANI ternary hybrid composite for electrochemical capacitance performance, RSC Advances, RSC Publishing, England, 6, 40567–40576. (Impact factor :3.289).
6. Pandimurugan R, Thambidurai S, (2016), S Synthesis of seaweed-ZnO-PANI hybrid composite for adsorption of methylene blue dye, Journal of Environmental Chemical Engineering, Elsevier, Netherlands,4, 1332–1347. (Impact factor:1.054).
7. Pandiselvi K, Thambidurai S, (2016), Synthesis of adsorption cum photocatalytic nature of polyaniline-ZnO/chitosan composite for removal of textile dyes, Desalination and Water Treatment, Taylor & Francis, United Kingdom, 57, 8343-8357. (Impact Factor: 1.173).
8. Pandimurugan R, Thambidurai S, (2015), Seaweed-polyaniline nanofibre modified electrode for sensing of uric acid, Analytical Methods, RSC Publishing, United Kingdom 7, 10422–10432. (Impact factor - 1.821).
9. Pandiselvi K, Thambidurai S, (2015), Synthesis, characterization, and antimicrobial activity of Chitosan-zinc oxide/polyaniline composites, Material Science in Semiconductor Processing, Elsevier, USA, 31, 573-581. (Impact Factor: 2.264).
10. Pandiselvi K, Thambidurai S, (2014), Chitosan-ZnO/Polyaniline nanocomposite modified glassy carbon electrode for selective detection of dopamine, International Journal of Biological Macromolecules, Elsevier, USA,. 67, 270-278., (Impact Factor: 3.138).
11. Pandimurugan R, Thambidurai S, (2014), Seaweed-ZnO composite for better antibacterial properties, Journal of Applied Polymer Science, John Wiley & Sons Inc, USA, 131, DOI: 10.1002/app.40948. (Impact Factor: 1.866)
12. Pandiselvi K, Thambidurai S, (2014), Chitosan-ZnO/polyaniline ternary nanocomposite for high performance supercapacitor, Ionics, Springer, Germany, 20, 551-561. (Impact Factor: 2.119).
13. Pandiselvi K, Manikumar A, Thambidurai S, (2014), Synthesis of novel polyaniline/MgO composite for enhanced adsorption of reactive dye, Journal of Applied Polymer Science, John Wiley & Sons Inc, USA, 131, DOI: 10.1002/app.40210. (Impact Factor: 1.866).
14. Pandiselvi K, Thambidurai S, (2013), Synthesis of porous chitosan–polyaniline/ZnO hybrid composite and application for removal of reactive orange 16 dye, Colloids and Surfaces B: Biointerfaces, Elsevier, Netherlands, 108, 229-238. (Impact Factor: 3.902).

15. Krishnaveni R, Thambidurai S, (2013), Industrial method of cotton fabric finishing with chitosan–ZnO composite for anti-bacterial and thermal stability, *Industrial Crops and Products*, Elsevier, USA, 47, 160-167. (Impact Factor: 3.449).
16. Pandiselvi K, Thambidurai S, (2013), Chitosan-ZnO/polyaniline hybrid composites: Polymerization of aniline with chitosan-ZnO for better thermal and electrical property, *Polymer Degradation and Stability*, Elsevier, USA, 98, 988-996. (Impact Factor: 3.120).
17. Anadhavelu S, Thambidurai S, (2013), Single step synthesis of chitin/chitosan-based graphene oxide–ZnO hybrid composites for better electrical conductivity and optical properties, *Electrochimica Acta*, Elsevier, UK, 90, 194– 202. (Impact Factor: 4.803).
18. Anadhavelu S, Thambidurai S, (2013), Preparation of eco-friendly chitosan-ZnO composite for chromium complex dye adsorption, *Coloration Technology*, Wiley Blackwell, USA, 129, 187-192. (Impact Factor: 1.127).
19. Anadhavelu S, Thambidurai S, (2013), Effect of annealing temperature on optical and electrochemical properties of chitosan-ZnO nanostructure, *Ionics*, Springer-Verlag, Germany, 19, 903-909. (Impact Factor: 2.119).
20. Umasangari T, Anadhavelu S, Thambidurai S, (2013), Eco-friendly preparation of zinc oxide nanoparticles with jackfruit seed flour template and microwave assist heating, *Advanced Science, Engineering and Medicine*, American Scientific Publishers, USA, 5, 841-845. (Impact Factor: 0.987).
21. Baburaj T, Thambidurai S, (2012), N-Amination of amino acids and its derivatives using N-Boc-O-tosyl hydroxylamine as an efficient NH-Boc transfer reagent: Electrophilic amination, *Tetrahedron Letters*, Elsevier, UK 53, 2292-2294. (Impact Factor: 2.343).
22. Krishnaveni R, Thambidurai S, (2012), Modification of Enzyme Pretreated Cotton Fabric using Acrylonitrile, Acrylonitrile/ Solvent Mixture and its Characterization, *Fibre and Polymers*, Springer, Korea, 13, 1132-1338. (Impact Factor: 1.02).
23. Anadhavelu S, Thambidurai S, (2011), Effect of zinc chloride and sodium hydroxide concentration on the optical property of chitosan-ZnO nanostructure prepared in chitin deacetylation, *Materials Chemistry and Physics*, Elsevier, Taiwan, 131, 449-454. (Impact Factor: 2.101).
24. Baburaj T, Thambidurai S, (2011), N-Boc-O-Tosyl Hydroxylamine as a Safe and Efficient Nitrogen Source for the N-Amination of Aryl and Alkyl Amines: Electrophilic Amination, *Synlett*, Georg Thieme Verlag Stuttgart, USA, 14, 1993-1996. (Impact Factor: 2.413).

25. Krishnaveni R, Thambidurai S, (2011), Effect of Solvents on Cyanoethylation of Cotton Cellulose and its Properties, Journal of Applied Polymer Science, John Wiley & Sons Inc, USA, 122, 1622–1627. (Impact Factor: 1.866)
26. Anadhavelu S, Thambidurai S, (2011), Preparation of Chitosan-Zinc oxide Complex during chitin deacetylation, Carbohydrate Polymers, Elsevier, USA, 83, 1565–1569. (Impact Factor: 4.219).
27. Thambidurai S (2011), Extraction and Characterization of Seaweed Nanoparticles for Application on Cotton Fabric, Handbook of Marine Macroalgae: Biotechnology and Applied Phycology, JohnWiley & Sons, UK, Chapter 9, 205-220 [Book Chapter].