

Name : Dr. R. Menaka
Designation : Assistant Professor
Department : Chemistry
Qualification : M. Sc., M. Phil., Ph. D.
Experience :
 Teaching: 1.8 Years Industry: Nil Research: 4 Years
Area of Specialization(s) : Corrosion Science and Polymer Science
Email (Official ID) : menaka.r@drngpasc.ac.in

Academic Qualifications

Degree	Branch	Institution / University Name	Year of Graduation
Ph. D.	Chemistry	Avinashilingam University for Women, Coimbatore.	2018
M. Phil.	Chemistry	Avinashilingam University for Women, Coimbatore.	2012
M. Sc.	Chemistry	Avinashilingam University for Women, Coimbatore.	2010
B. Sc.	Chemistry and Physics	Avinashilingam University for Women, Coimbatore.	2008

Additional Qualifications

Diploma / Vocational / Certification	Area of Specialization	Institution / University / Agency Name	Year
NPTEL	Outcome based Pedagogic Principles for Effective Teaching	Indian Institute of Technology, Kharagpur	2017
NPTEL	Metal Mediated Synthesis – I	Indian Institute of Technology, Bombay	2018

Research Publications (Indexed)

International

- 1) Menaka, R., Geethanjali, R., Subhashini, S., **Electrochemical Investigation of Eco-Friendly Chitosan Schiff Base for Corrosion Inhibition of Mild Steel in Acid Medium**, Materials Today Proceedings, Elsevier, 5(8), 16617-16625, 2018.

- 2) Geethanjali, R., Menaka, R. and Subhashini, S, **Gravimetric And Electrochemical Study Of Temperature Effect Of Pva Grafted Terpolymer On Corrosion Inhibition Of Mild Steel In Hydrochloric Acid**, Materials today Proceedings, Elsevier, 5(8), 16246 -16257, 2018
- 3) Menaka, R., and Subhashini, S., **Chitosan Schiff Base As Effective Corrosion Inhibitor For Mild Steel In Acid Medium**, Polymer International, Wiley Publications, 66(3), 349-358, 2017.
- 4) Menaka, R., and Subhashini, S., **Chitosan Schiff Base as Eco-Friendly Inhibitor for Mild Steel Corrosion in 1 M HCL**, Journal Of Adhesion Science And Technology , Taylor and Francis, 30(15), 1622-1640, 2016.

Other Publications: International / National Journals

- 1) Geethanjali, R., Menaka, R. and Subhashini, S., **Peg Based Stimuli Sensitive Hydrogels: Synthesis, Characterization and Swelling Behavior in Various Media**, International Journal of Advance Research in Engineering and Applied Sciences, 2(1), 106-117, 2015.
- 2) Menaka, R., Geethanjali, R. and Subhashini, S., **Optimization of Factors Influencing Corrosion Inhibition Performance of N-Maleyl Chitosan/Polyvinyl Alcohol Blend for Mild Steel in Acid Medium – Taguchi Method**, Journal of scientific Research and advances, 2(1), 73-79, 2015.
- 3) Menaka, R., Nandhini, M. and Subhashini, S., **Histidine as Synergistic Additive on Poly (N-Methyl Aniline) for Mild Steel Corrosion in 0.5 M H₂SO₄**, Research Journal of Recent Sciences, 3, 177-181, 2014.

Presentations in Conference

- 1) **Enhanced Corrosion Protection and Surface Interaction of Chitosan Schiff Base on Mild Steel Surface in 1M HCl**, INCOSURF-2018 - International Conference on Surface Engineering, IISc., Bangalore, 9 to 11-Aug-18.
- 2) **Modified Chitosans as potential green inhibitor for mild steel corrosion in 1M HCl**, Recent Innovations in Science and Technology, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, 23-Feb-18.
- 3) **Electrochemical, Theoretical and Surface Morphological Investigation of Chitosan Schiff base as Potential Corrosion Inhibitor for Mild steel in Hydrochloric Acid Solution**, ICONEST 2017 - Second International conference on Electrochemical Science and Technology, IISc., Bangalore, 10-Aug-17.

- 4) **Synthesis of Chitosan based Schiff bases and Evaluation of their scale inhibition performance**, BRNS & CSIR Sponsored International Conference on Energy, Environment and Advanced Materials for a Sustainable Future (ICEEAMSF-2017), Kongu Engineering College, Erode, 23 and 24-May-17.
- 5) **Electrochemical Investigation of mild steel corrosion inhibition in 1M HCl medium by Chitosan Schiff base**, SCICON'16 - International Conference on Advanced Materials, Amirta Vishwa Vidyapeetham, Coimbatore, 19 to 21-Dec-16.
- 6) **Evaluation of Chitosan Schiff base as an environment friendly corrosion and scale inhibitor**, 11th Asia Pacific Chitin and Chitosan Symposium & 5th Indian Chitin and Chitosan Society Symposium 2016, Kochi, Kerala, 28 to 30-Sep-16.
- 7) **Electrochemical and thermodynamical investigation of Chitosan Schiff base On Corrosion inhibition of Mild steel in 1M hydrochloric acid medium**, National Convention of Electrochemists (NCE-19), Tiruchirapalli, 28 & 29-Mar-16.
- 8) **Chitosan Schiff base as effective corrosion inhibitor for mild steel in acid medium**, NANO-15 - International Conference on Nano materials and Nano technology, KSR group of Institutions, 07-Dec-15.
- 9) **Mild steel corrosion inhibition by biopolymeric Schiff base: An experimental and theoretical investigation**, International Corrosion Prevention Symposium for Research Scholars (CORSYM-2015), The NACE International Gateway India Section (NIGIS) - South Zone Student Section, 31-Jul-15 to 1-Aug-15.
- 10) **Synergistic Influence of Cystine on corrosion inhibition of Poly (N-Methyl Aniline) for mild steel in sulfuric acid and a comparative study with the polymer composite**, National Corrosion Council of India (NCCI) in collaboration with CSIR - Central Electrochemical Research Institute (CECRI) and The Gandhigram Rural Institute-Deemed University, Gandigram, 17-Apr-15.
- 11) **Optimization of factors influencing corrosion inhibition performance of N- Maleyl chitosan/poly vinyl alcohol blend for mild steel in acid media –Taguchi method**, 17th National Congress on Corrosion Control, National Corrosion Council of India and Central Electrochemical Research Institute, Karaikudi, 21to 23-Aug-14.
- 12) **Synergistic Inhibition between Poly (N-Methyl Aniline) and Threonine on Mild Steel Corrosion in H₂SO₄ and A Comparative study with the Polymer Composite**, International

Conference on Chemistry – Frontiers and Challenges, PSGR Krishnammal College for Women, Coimbatore, 5 to 7- Feb-14.

- 13) **Histidine as Synergistic Additive on Poly(N-Methyl Aniline) for Mild Steel Corrosion in 0.5 M H₂SO₄**, International Science Congress Association at Karunya University, 8 to 9-Dec-13.

Participation in Seminars

Recent trends in Spectroscopy Research (Sponsored by Society of Advancement of Chemical sciences and Education and IGCAR), Avinashilingam University for Women, Coimbatore, 4-Mar-16.

Participation in Workshop

- 1) **Workshop on Corrosion and its Control** (Sponsored by National Corrosion Council of India), PSGR Krishnammal College for Women, Coimbatore, 30-Jun-16 to 1-July-16.
- 2) **Frontier Materials** (Sponsored by Royal Society of Chemistry), Avinashilingam University for Women, Coimbatore, 15-Feb-16.
- 3) **3D printing** (Sponsored by M/s CADD Centre, Chennai), Avinashilingam University for Women- Faculty of Engineering, 10-Feb-15.
- 4) **Frontiers in Corrosion Engineering and Technology** (Sponsored by Indian Science Academies), Bannari Amman Institute of Engineering and Technology, 12 & 13-Feb-16.
- 5) **National Higher Education Qualification Framework** (Sponsored by UGC), Avinashilingam University for Women, Coimbatore, 17-Dec-14.
- 6) **Quality Education for All** (Sponsored by UGC), Avinashilingam University for Women, 17-Nov-14.
- 7) **Conducting Innovative Corrosion control Research** (Sponsored by DST curie), Avinashilingam University for Women, Coimbatore, 27 to 31-Jan-14.

Participation in Orientation Programme / Short Term Courses

- 1) **Training Programme on FE sem** (sponsored by DST- CURIE), Avinashilingam University for Women, Coimbatore, 22- Sep-18.

- 2) Short Term Course on **Current Scenario in NANO & FUNCTIONAL MATERIALS (Nano-FM 2017)** (sponsored by AICTE Quality Improvement Programme), Coimbatore Institute of Technology, 1 to 7 Mar-17.
- 3) **Instrumentation and Analytical Techniques**, Salim Ali Centre for Ornithology and Natural History, Anaikatty, Coimbatore, 16 to 20-Mar-15.

Participation in Faculty Development Programme

Quality Initiatives in Higher Education, Dr. N.G.P. Arts and Science College, Coimbatore, 3-Dec-18 to 9-Dec-18.

Editorial / Review Board Member

Reviewer, Journal of Adhesion Science And Technology, Taylor and Francis, since 2018

Awards / Honors

Awards / Honors	Agency / Institute	Year of Award
Second Prize in Paper Presentation (Poster)	Avinashilingam Institute for Home science and Higher Education for Women, Coimbatore	2018
Best Paper Presentation (Oral)	IIT Madras, Chennai and NACE International Gateway India Section (NIGIS)	2015