

Dr. R. Babhu Vignesh, M.Sc., DIWA., Ph.D
Assistant Professor, Department of Chemistry,
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Educational Qualification

Degree	Specialization	University/College	Year of Completion
Diploma	Industrial Water Analysis and Waste Water Treatment	The Madura College, Madurai	2005
B.Sc	Chemistry	The Madura College, Madurai	2007
M.Sc	Chemistry	The Madura College, Madurai	2009
Ph.D	Chemistry	The Gandhigram Rural Institute - Deemed to be University, Gandhigram	2018

Teaching Experience in Years: 6 years

Research Experience in Years: 6.5 years

Research Supervisor ID: 3470017 (Anna University, Chennai)

Employment History:

S. No	Name of College	Designation	PERIOD	TOTAL YEARS
1.	Velammal College of Engineering and Technology	Assistant Professor	10-08-2023 to Till date	
2.	Sethu Institute of Technology Pullor - 626 115, Kariapatti Taluk, Virudhunagar (Dt) Tamil Nadu, India.	Associate Professor	01-11-2022 to 07-08-2023	8 Months
		Assistant Professor (Senior	10-05-2019 to 31-10-2022	3.6 Months

		Grade)		
3.	Kalasalingam Institute of Technology Krishnankoil, Srivilliputtur, Tamil Nadu - 626 126, India	Assistant Professor	01-06-2018 to 30-04-2019	10 Months

Interest Area of Research:

- ❖ **Material Science.**
- ❖ **Surface Morphological Strategies.**
- ❖ **Adsorption Studies.**
- ❖ **Electrochemical Sensors.**

Awards and Honors:

- ❖ Selected for **“Faculty Research Internship”** in **Jain University, Bangalore.**
June 3-20, 2024.
- ❖ **UGC-RFSMS** (University Grants Commission - Research Fellowships in Sciences for Meritorious Students), New Delhi, March 2011.
- ❖ Selected for Paper Presentation in **“YOUNG SCIENTIST CONFERENCE”**, Kolkata, November 5-8, 2019.
- ❖ Awarded as **Inspiring Chemistry Teacher** by SRM Institute of Science and Technology, Chennai in Gratitude 2020 on 05 September 2020.
- ❖ Educational Award for **“Innovative Planning and Pathway Mentor”** from **Toastmasters International in 2021.**
- ❖ **BEST POSTER PRESENTATION AWARD** - International Conference on Advancements and Challenges in Chemical Sciences (ICACCS 2018), Pachaiyappa’s College, Chennai, February 2 - 3, 2018.
- ❖ **BEST PAPER AWARD** - International Virtual Conference on Chemical Research for Sustainable Development (ICCRSD - 2021), SRM IST, Chennai, September, 24-25, 2021.

Certificate Course:

- ❖ One week course work in **“Gas Chromatography”** at Advance Training Institute, Chennai.

- ❖ Certificate course for completion of **Level 5 (Innovative Planning)** in Toastmaster International.
- ❖ Completed Five day online course on “**Chemistry in our Day to day Life**” conducted by Jamal Mohamed College, Tiruchirappalli, from June 04 to 08, 2020.

Inplant Training:

- ❖ One month In-plant training in **Orchid Chemical & Pharmaceuticals Ltd.** (R&D), Chennai.

International Journal Publication and Communicated Details:

- ❖ Corrosion protection behaviour of sol-gel derived N,N-dimethylthiourea doped 3-glycidoxypropyltrimethoxysilane on aluminium, **Rajendran Babhu Vignesh**, Mathur Gopalakrishnan Sethuraman, **Progress in Organic Coatings**, 77 (2014) 136- 141. **(Impact Factor: 6.6)**
- ❖ Sol-Gel Coating with 3-Mercaptopropyltrimethoxysilane as Precursor for Corrosion Protection of Aluminium Metal, **Rajendran Babhu Vignesh**, Thomas Nesakumar Jebakumar Immanuel Edison, Mathur Gopalakrishnan Sethuraman, **Journal of Materials Science & Technology**, 30 (2014) 814-820. **(Impact Factor: 10.9)**
- ❖ Enhancement of corrosion protection of 3-glycidoxypropyltrimethoxysilane-based sol-gel coating through methylthiourea doping, **Rajendran Babhu Vignesh**, Mathur Gopalakrishnan Sethuraman, **Journal of Coatings Technology and Research**, 11 (2014) 545-554. **(Impact Factor: 2.3)**
- ❖ Surface modification, characterization and corrosion protection of 1,3-diphenylthiourea doped sol-gel coating on aluminium, **Rajendran Babhu Vignesh**, J. Balaji, Mathur Gopalakrishnan Sethuraman, **Progress in Organic Coatings**, 111 (2017) 112-123. **(Impact Factor: 6.6)**
- ❖ Corn husk Biochar and chromium (VI) ions blended soil as fuel in soil microbial fuel cell, **Biomass Conversion and Biorefinery**, (<https://doi.org/10.1007/s13399-023-04272-z>), 2023. **(Impact Factor: 4.0).**

- ❖ Efficient interfacial charge transfer hierarchical crinked (2D/2D) Ti₃C₂T_x MXene assembled on perforated GO heterojunction for enhanced degradation of organic dye, **Journal of Environmental Chemical Engineering**, 12 (2024) 112266 (**Impact Factor: 7.7**)
- ❖ Design, Synthesis, and Anticancer Activity of N-1 Terminal Segment of α -(2,5,7-Tri-tert-butylindol-3-yl)alanine-Incorporated Short Peptides, **Chemistry Select.** 9 (2024) e202304974 (**Impact Factor: 2.1**)
- ❖ Enhanced surface protection of aluminium through thiourea doped novel silane coating, **Research on Chemical intermediates**, (Under Review).

International/National Conference Presented Details:

- ❖ Corrosion inhibition performance of ATA doped silane coating over aluminium metal in NaCl, **International Conference on Recent Trends in Organometallic and Material Sciences**, Easwari Engineering College, Chennai, August, 6-7, 2023.
- ❖ Enhanced corrosion protection efficiency of 3-Amino-1,2,4-Triazole doped silane coating over aluminium metal, **International Conference on Multidisciplinary Aspects in Chemistry**, Sri Ramakrishna College of Arts and Science, Coimbatore, Feb, 9-10, 2023.
- ❖ Influence of thiourea doped silane based sol-gel coating for protection of Al surface, **International Conference on Advancement in material Science and Technology**, Sathyabama Institute of Science and Technology, Chennai on Nov 2-4, 2022.
- ❖ **International Virtual Conference on Chemical Research for Sustainable Development (ICCRSD - 2021)**, SRM IST, Chennai, September, 24-25, 2021. (**Won Best Poster Presentation Award**)
- ❖ Self-assembled monolayer of novel hybrid composite sol-gel coating for protection of aluminium metal from corrosion in NaCl medium, **International Virtual Conference on Chemical Research for Sustainable Development (ICCRSD - 2021)**, SRM IST, Chennai, September, 24-25, 2021.
- ❖ Surface morphological and electrochemical studies of self-assembled TiO₂ doped sol-gel coatings for the protection of aluminium metal from corrosion,

Virtual International Conference on Surface Chemistry, Annamalai University on August 27-28, 2020. P. 13.

- ❖ Surface morphological studies of ATU doped sol-gel coating for the protection of aluminium metal from corrosion, **International Web - Conference on Recent Trends in Scientific Research**, Dr. Ambedkar Government Arts College, Vyasarpadi. Chennai on August 3 - 4, 2020
- ❖ Studies on corrosion inhibition performance of hybrid composite sol-gel coatings over aluminium metal in 3.5% NaCl medium, **International E-Conference on Revisiting Strategies for Sustainable Development**, Banwarilal Bhalotia College, Asansol, on June 13-14, 2020
- ❖ Chemodiversity - The Treasure For The Future, **National Conference on Biodiversity and Conservation of Medicinal Plants**, Dr. Ambedkar Government Arts College, Vyasarpadi. Chennai on February 4 -5, 2020. P. 9. (ISBN: 978-81-94537-71-7)
- ❖ Studies of ATU doped 3-GPTMS Sol-gel Coating for Protection of Aluminium from Corrosion in 3.5% NaCl Medium, **Young Scientist Conference, MHRD, Kolkata** on November 5-8, 2019.
- ❖ Influence of Al₂O₃ nano particle doped sol- gel coating for protection of aluminium metal from corrosion in 3.5% NaCl medium, **International Conference on Research Initiatives in Chemistry for Sustainable development**, Gandhigram Rural Institute - Deemed University, Gandhigram, March 18 - 19, 2019, p. 205. (ISBN: 978-93-86712-63-9)
- ❖ Electrochemical and Surface Analytical Studies of Methylthiourea doped 3-Aminopropyltrimethoxysilane Sol-gel Coating for Protection of Aluminium from Corrosion in 3.5% NaCl Medium, **International Conference on Innovations in Engineering, Science and Technology**, Kalasalingam Institute of Technology, Krishnankoil, February 15-16, 2019 p. 35, (ISBN: 978-93-883-984-28)
- ❖ Enhancement of sol-gel coating by addition of TiO₂ nano particle for corrosion protection of aluminium metal, **5th International Conference on Nanoscience and Nanotechnology**, SRM University, Chennai, January 28-30, 2019, p. 1130. (ISBN: 978-93-841-361-61)

- ❖ Synthesis and characterization of V₂O₅-MnO₂ nanocomposite for solar still application, **5th International Conference on Nanoscience and Nanotechnology**, SRM University, Chennai, January 28-30, 2019, p. 1167. **(ISBN: 978-93-841-361-61)**
- ❖ A novel hybrid composite Polyaniline-HAP incorporate in sol-gel coating for corrosion protection on aluminium, **International Conference on Advancements and Challenges in Chemical Sciences**, Pachaiyappa's College, Chennai, February 2 - 3, 2018, p. 159. **(ISBN: 978-93-5291-377-0)** **(Won Best Poster Presentation Award)**
- ❖ Corrosion resistance of Al metal by organic inhibitor doped sol-gel coating in 1% NaCl medium, **International Corrosion Conference and Expo (CORCON 2013)**, New Delhi, September 30 - October 3, 2013, SS13.
- ❖ N,N-Dimethyl urea doped sol-gel coating on metal for corrosion protection, **National Conference on Recent Advances in Surface Science (RASS 2013)**, Gandhigram Rural Institute - Deemed University, Gandhigram, February 14 - 15, 2013, p. 255. **(ISBN: 978-93-82338-36-9)**
- ❖ Thiourea Doped Silane Based Sol-Gel Coating for Protection of Al and Cu Substrates, **International Corrosion Conference and Expo (CORCON 2012)**, Goa, September 26 - 29, 2012, SS26.
- ❖ Investigation of Sol-gel Coating of 3 - Mercaptopropyltrimethoxysilane on Aluminium for Corrosion Protection, **National Conference on Social Relevance of Chemical Sciences**, Kuvempu University, Shankaraghatta, Karnataka, March 26 - 27, 2011, p. 8.

Expert Lecture Delivered:

- ❖ Delivery a special Lecture on “**Environmental Science**” in Department of Science and Technology in Sethu Institute of Technology, Kariapatti on 09.04.2019.
- ❖ Delivery a special Lecture on “**Environmental Science**” in Department of Science and Technology in Sethu Institute of Technology, Kariapatti on 25.04.2019.

- ❖ Delivery a special Lecture on “**Chemistry in daily Life**” on One day Seminar on Phytochemistry organized by the Department of Plant Biology and Plant Biotechnology at Dr. Ambedkar Government Arts Colloge, Vyasarpadi. Chennai on 06.03.2020.

FDP Completed: 13

NPTEL Course:

- ❖ NPTEL Course Completed “**Industrial Inorganic Chemistry**” Completed and awarded as “**ELITE**”.
- ❖ NPTEL Course Completed “**Analytical Chemistry**” Successfully Completed.
- ❖ NPTEL Course Completed “**Co-ordination Chemistry (Chemistry of Transition Elements)**” Successfully Completed.

Programme Organised as Committee Member:

- ❖ International Webinar on “**Raman Spectroscopy and its Application in Material Science**” held on 28.01.2022.
- ❖ Natinal Webinar on “**Emerging Trends in Advanced Energy Materials**” held on 29.01.2021.
- ❖ International Conference on “**Innovations in Engineering, Science and Technology**”, Kalasalingam Institute of Technology, Krishnankoil, February 15-16, 2019.

Membership of Professional Bodies:

- ❖ Member (President) in “**International Toastmaster**” (Speech Master for improving the communication skill) (2019-2022).
- ❖ Life Time Member in “**Academic and Research Conclave**”, Coimbatore, Tamil Nadu
- ❖ Life Time Member in “**The Institution of Green Engineers(IGEN)**”, (ID No: 9923)

Google Scholar link: <https://tinyurl.com/47apdjs4>

Orchid ID: <https://orcid.org/0000-0001-6397-9584>