

**Name: Dr Rachael Natasha Mary**

**Designation:** Assistant Professor III & HOD

Department of Chemistry

School of Physical Sciences

St Aloysius (Deemed to be University)

Mangaluru- 575003

**D.O.B:** 23rd December 1987

**Contact**

**Address:**  Flat No 104, Vishwas Anmol Apartments

Behind KPT Barebail

Vyasanagar, Mangalore, Bejai 575004

**E- mail:** [rachael2312@gmail.com](mailto:rachael2312@gmail.com) ;rachael\_natasha@staloysius.edu.in

**Phone:** +91 9901729461

**Education**

**Ph.D (Chemistry) from Tumkur University, 2021**

Thesis titled ‘Study of Electrochemical Behavior and Corrosion Resistance of Maraging steel in Acid Media’

**MSc (General Chemistry), Mangalore University, 2008-2010**

**BSc (Chemistry, Microbiology, Botany), St Aloysius College (Autonomous) Mangalore, 2005-2008**

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| **Sl No** | **COURSE** | **INSTITUTION** | **SUBJECT** | **YEAR OF PASSING** | **RESULT** |
| 1 | MSc | MANGALORE UNIVERSITY | CHEMISTRY | May 2010 | 71.45 % |
| 2 | BSc | St ALOYSIUS COLLEGE (MANGALORE) | MICROBIOLOGY, CHEMISTRY, BOTANY | April 2008 | 82.8 % |
| 3 | II PUC | St ALOYSIUS COLLEGE (MANGALORE) | PHYSICS, CHEMISTRY, MATHS, BIOLOGY | APRIL 2005 | 77.16 % |
| 4 | SSLC | St ANN’S HIGH SCHOOL | ENG,KAN,HIN, MATHS, SCI, So Sc | MARCH 2003 | 85.92% |

**Work Experience: 15 years**

**Papers Published: 04**

* R.N. Mary, R. Nazareth and P.A. Suchetan (2018). Inhibition Effect of 4-{[4-(dimethylamino)benzylidene]amino}-5-methyl-4H-1,2,4-triazole-3-thiol on the Corrosion of Maraging Steel in 1.5M HCl, *Journal of Applicable Chemistry*, 7 (6): 1713-1727.
* R.N. Mary, R. Nazareth, P.K.Murthy and P.A. Suchetan (2020).Experimental and Theoretical Study of Corrosion Behavior of Maraging Steel in 1M HCl in the presence of 5-methyl-4-[(E)-(thiophen-2-ylmethylidene)amino]-4H-1,2,4-triazole-3-thiol, *Asian Journal of Chemistry,* 32 (4), 845-852.
* R.N. Mary, R. Nazareth, P.K.Murthy and P.A. Suchetan (2021). Investigation of corrosion inhibition property of triazole based Schiff bases on maraging steel in acid mixtures, *Journal of Failure Analysis and Prevention*, 21: 547-562.
* R.N. Mary, R. Nazareth, P.K.Murthy and P.A. Suchetan, Schiff Bases derived from triazoles as corrosion inhibitors for maraging steel: Experimental and theoretical studies, *Journal of Polycyclic Aromatic Compounds*, DOI: 10.1080/10406638.2022.2055582.

**Papers Presented:** **05**

* Presented a paper titled ‘Studies on corrosion behaviour of maraging steel in hydrochloric acid medium’at the 17th Asian Pacific Corrosion Control Conference, Indian Institute of Technology Bombay, Mumbai, India during 27-30th January 2016.
* Presented a paper titled ‘Synthesis of 4-{[4-(dimethylamino)benzylidene]amino}-5-methyl-4*H*-1,2,4-triazole-3-thiol (DBAMTT) and its effect on the corrosion resistance of Maraging Steel using potentiodynamic polarization studies in 1.5M HCl’ at the International Conference on NANOTECHNOLOGY-2019 ‘Opportunities and Challenges’ at St Aloysius College, Mangaluru on 10th and 11th January 2019.
* Presented a paper titled ‘Effect of 4-[(*E*)-(furan-2-ylmethylidene)amino]-5-methyl-4*H*-1,2,4-triazole-3-thiol on the corrosion resistance of Maraging Steel using tafel polarization studies in a 2:1mixture of HCl and H2SO4’ at an International Conference on Advances in Chemical and Materials Sciences at Mangalore University on October 17-19, 2019.
* Presented a paper titled ‘Experimental and Theoretical studies on Schiff Bases derived from Triazoles as Corrosion Inhibitors for Maraging Steel in Acid Mixtures’ at an International Conference on New Horizons and Trends in Chemical Sciences organised by Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur and ISAS Nagpur Chapter on 25th & 26th March 2022.
* Presented a paper titled ‘Inhibitory effect of a Triazole derived Schiff base on Corrosion of Maraging Steel in 1M HCl: Experimental and Theoretical studies**’** at a National conference on Emerging trends in Chemical Science Research (NCETCSR-2023) organised by department of Studies and Research in Chemistry, University College of Science, Tumkur University, Tumakuru on 8th March 2023.
* Presented a paper titled ‘Synthesis of a Schiff base 4-[(4-chlorobenzylidene)amino]-5-methyl-4H-1,2,4-triazole-3-thiol [CAMTT] and its effect as a corrosion inhibitor on maraging steel in 1M HCl’ at an INTERNATIONAL CONFERENCE on Materials for Energy and Environmental Sustainability- 2025 organized by Department of Chemistry, The Oxford College of Science, Bangalore in association with Core-Facility Centre for Photochemistry & Nanomaterials Gyeongsang National University (GNU), South Korea on 5 & 6 March 2025

**Awards Received: 02**

* Best Poster Presentation Award at an International Conference onNew Horizons and Trends in Chemical Sciences organised by Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur and ISAS Nagpur Chapter on 25th & 26th March 2022.
* Best Paper Award at an International Conference on Materials for Energy and Environmental Sustainability- 2025 organized by Department of Chemistry, The Oxford College of Science, Bangalore in association with Core-Facility Centre for Photochemistry & Nanomaterials Gyeongsang National University (GNU), South Korea on 5 & 6 March 2025.

**Research Project:** **01**

Completed a UGC Minor Research Project in 2013-2015 on the topic‘Synthesis, Spectral characterization, Electrochemical and Microbial Studies of some Schiff base complexes with Transition Element Cations’