## JAMAL MOHAMED COLLEGE

(Autonomous)

Accredited (3<sup>rd</sup> Cycle) with 'A" Grade by NAAC (Affiliated to Bharathidasan University)

Tiruchirappalli - 620 020.



# RESUME

Name : Dr. B. ARIFA FARZANA

Sex : Female

**Designation**: Assistant Professor in Chemistry

**Date of Birth** : 17.08.1983

Address:

**Residential**: 96, TSA Nagar,

5th Cross Anbu Nagar, Crawford, Tiruchirappalli-620 012, Tamilnadu.

**Official**: Assistant Professor,

PG & Research Dept. of Chemistry, Jamal Mohamed College (Autonomous), Tiruchirappalli - 620 020, Tamilnadu.

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### **Educational Qualification:**

S.No.	Examination Passed	University / College	Year of Passing
1.	B.Sc. (Chemistry)	Holy Cross College, Trichy.	2004
2.	M.Sc. (Chemistry)	Holy Cross College, Trichy.	2007
3.	M.Phil. (Chemistry)	Jamal Mohamed College, Trichy.	2008
4.	Ph.D (Chemistry)	Jamal Mohamed College, (Affiliated to Bharathidasan University), Trichy.	2019

## **Experience:**

**Undergraduate**: 13 years 3 months **Postgraduate**: 13 years 3 months

Language Known : Tamil, English & Urdu

**Areas of Specialization**: Physical Chemistry, Inorganic Chemistry

## **Subjects Taught:**

UG: Inorganic Chemistry, Physical Chemistry

and Organic Chemistry

PG: Inorganic Chemistry and Physical Chemistry

### **Patents Granted:**

 Published 1 Indian Patent on the title Novel Herbal Tea Blend as Immune Booster and its antioxidant activity (Indian Patent) in the year 2022.

- Published 1 Indian Patent on the title Synthesis of Superhydrophobic Silica
   Nanoparticles and method for preparing Non-stick paint by using same (Indian Patent) in the year 2022.
- Published 1 International Patent on the title A method for the synthesis and biological evaluation of new Sulfonamide-Analogs (International Patent) in the year 2022.

### Awards and Achievements (Both College & Department):

- Received Best Woman Academician of the Year Award in an International Conference in Association with Research Education Solutions (Registered as Micro Enterprise with MSME, Government of India) in the year 2022
- Published 1 Book Chapter on "Recent Trends and Latest Innovations in Life Sciences" in the year 2022.
- Published 1 Book Chapter on "A multidisciplinary Approach in Innovation Paradigm" in the year 2022.

#### **Projects Granted:**

♣ Received **Seed Money Grant** from Jamal Mohamed College, Tiruchirappalli for the year 2022.

# **Details of Online Certification Courses:**

- ♣ Completed the NPTEL Online Certification Course in 'Basics in Inorganic Chemistry', on Jan-Feb 2020.
- ♣ Completed the NPTEL Online Certification Course in 'Patent Drafting for Beginners', on Jan-Feb 2021.
- **↓** Completed the Online Certification Course in **Annual Refresher Programme in Teaching** (ARPIT-2020).

- Completed the Online Certification Course in Enhancing Soft Skills and Personality on April 2022.
- **♣** Completed the Online Course for **Innovation Ambassador (Foundation Level)** conducted by MoE's Innovation Cell (Govt. of India) & AICTE on July 2022.

#### Reviewer:

- ♣ Performing as a reviewer in **Journal of Materials Science Research and Reviews** from the year 2020.
- → Performing as a reviewer in **Journal of Pharmaceutical Research International** from the year 2021.
- ♣ Performing as a reviewer in **Chemical Science International Journal** from the year 2021.
- ♣ Performing as a reviewer in **Asian Journal of Biochemistry** from the year 2021.
- ♣ Performing as a reviewer in International Research Journal of Pure and Applied Chemistry from the year 2021.
- ♣ Performing as a reviewer in **Journal of Plant Cell Biotechnology and Molecular Biology** from the year 2021.
- ♣ Performing as a reviewer in **Journal of Advances in Medicine and Medical research** from the year 2021.

## Details of Organizing Secretary / Resource Person / Judge:

- ♣ Acted as a **Judge** in the **National Nutrition Week Celebration Nutrizione' 19**, organized by Association of Nutrition and Dietetics & B.Voc Food Processing and Safety, Jamal Mohamed College, Trichy-20, on 3rd September 2019.
- ♣ Acted as a **Judge** in Science Projects **Nalaya Vingnyani**, jointly organized by VIT Vellore & Hindu Tamil held at National College, Trichy-1, on 13th October 2019.
- 4 Acted as a Resource person in A Five-Day National Level Online Course on Chemistry in Our Day-to-day Life on 6th June 2020.
- ♣ Served as a Co-convener in the 5th International Conference on Chemical and Environmental Research (ICCER-2019) on 8th January 2020.
- Acted as a Judge in **Poster presentation** in **National Science Day** organized by Jamal Mohamed College, Tiruchirappalli -20, on 26th February 2022.
- ♣ Acted as an **Organising Secretary** in **National Pollution Control Day** Celebration organised by Jamal Mohamed College, Tiruchirappalli on 2<sup>nd</sup> December 2021.
- Acted as a **Judge** in **30<sup>th</sup> National Children's Science Congress 2022-2023**, Anna University (BIT-Campus), Tiruchirappalli on 26<sup>th</sup> November 2022.
- ♣ Acted as a **Resource person** in **National Youth Day Celebration**, organized by National Service Scheme; Jamal Mohamed College, Trichy-20 on 13th January 2023.

### Academic Responsibilities (Both College & Department):

- ♣ Member of **Question setting and Valuation board** in Jamal Mohamed College, Trichy and Bharathidasan University, Trichy.
- **♣** Member in the **Convocation Law and Order Committee** since 2014
- **♣** Member in the **Students monitoring Committee** till 2020
- **Tutor-in-charge** for UG and PG Students since 2011
- **Member in Examination Committee** since 2011
- **Staff Advisor of Anti-Dowry Association** (Women) in our college from the year 2018.
- **♣ Placement Officer** of Department of Chemistry (Women) in our college from the year 2011.
- **4** As an **Innovation Ambassador** in IIC-MIC-AICTE
- As a Member in UGC Fit India Movement
- ♣ As an **Executive Committee member** of the JMC Alumni Staff Chapter since 2021

### **Details of Papers presented:**

- 1. Presented a paper entitled "Inhibition Action of Mild steel Corrosion in 0.5 M H<sub>2</sub>SO<sub>4</sub> Solution using Mannich Bases" held on 5th December 2008 in the National conference on Frontiers in Chemistry Research (NCFCR'08) organized by Department of Chemistry, Holy Cross College, Trichy.
- 2. Presented a paper entitled "Inhibition Action of Mild steel Corrosion in 1 N HCl Solution using Ericostema axillare" held on 11th & 12th March 2014 in the International Conference on "Chemical and Environmental Research" (ICCER-2014) organized by the PG & Research Department of Chemistry, Jamal Mohamed College (Autonomous), Tiruchirappalli.
- 3. Presented a paper entitled "Study of Cocculus hirsutus leaves extract as green corrosion inhibitor for mild steel in acidic medium" held on 17th December, 2015 in the International Conference on Chemical and Environmental Research (ICCER-2015), organized by PG & Research Department of Chemistry, Jamal Mohamed College, Tiruchirappalli, Tamilnadu.
- **4.** Presented a paper entitled "Inhibition effect of Erythrina variegata Leaves extract on corrosion rate of mild steel in acid media" held on 7th January, 2017 in the International Conference on Chemical and Environmental Research (ICCER-2017) organized by the Department of Chemistry, Jamal Mohamed College, Trichy.
- 5. Presented a paper in the entitled "Green loom to corrosion inhibition of Mild steel in 1.0 N HCl by the extract of Myristica fragrans leaves" held on 13th October 2017

- in the National conference on Advances in Innovative Materials for Energy and Environment (AIMEE-2017)", organized by SRM University, Ramapuram, Chennai, Tamil Nadu.
- 6. Presented a paper entitled "Influence of Gossypium barbadense leaves extract on corrosion inhibition of mild steel in sulphuric acid medium" held on 20th January 2018 in the National Conference on Recent Developments in Chemistry (NCRDC-2018)" organized by the PG & Research Department of Chemistry, Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamilnadu.
- 7. Presented a paper entitled "Potential of Croton bonplandianum as a green corrosion inhibitor against mild steel in acid medium" held on 7th February 2018 in the National Conference on Emerging Trends in Material Science (NCETMS-2018) organized by the Department of Physics, Chemistry and Electronics, Erode Arts and Science College (Autonomous), Erode.
- 8. Presented a paper entitled "Ruellia tuberosa leaves extract as corrosion inhibitor for mild steel in acid medium" held on 19th December 2018 in the 4th International Conference on Chemical and Environmental Research (ICCER-2018), organized by PG & Research Department of Chemistry, Jamal Mohamed College (Autonomous), Tiruchirappalli-620 020.
- 9. Presented a paper in the National Level Conference on "Pouteria campechiana as a Green Corrosion Inhibitor for Mild Steel in HCl Solution" held on 4th January 2019 in the Emerging Trends in Chemical and Biological Science, organized by Department of Chemistry, D.K.M. College for Women, Sainathapuram, Vellore.
- 10. Presented a paper entitled "Andrographis echioides leaves extract as mild steel corrosion inhibitor in 1.0 M HCl medium" held on 6th September 2019 in the International Conference on "Emerging Trends in Chemical sciences" (ICETCS-2019), organized by Department of Chemistry, Arulmigu Palaniandavavar Arts College for Women" (Autonomous) Palani.
- 11. Presented a paper entitled "Corrosion inhibition Potential of Mukia maderaspatana leaves extract on Mild Steel in acid medium" held on 8th January 2020 in the 5th International Conference on Chemical and Environmental Research (ICCER-2020) organized by the PG & Research Department of Chemistry, Jamal Mohamed College (Autonomous), Tiruchirappalli.
- 12. Presented a paper entitled "Green Approach to corrosion inhibition by Pouteria campechiana leaves Extract" held on 30th January 2020 in the International Conference on Challenges to environment and Health, organized by the PG & Research Department of Zoology, Jamal Mohamed College (Autonomous), Tiruchirappalli.
- 13. Presented a paper entitled "Andrographis echioides leaves extract as a Eco-friendly corrosion inhibitor for mild steel in acid medium" held on 11th &12th September 2020 in the International Web Conference on Advanced Materials Science and Engineering, (ICAMSE-2020), Department of Physics, Bannari Amman Institute of Technology, Sathyamangalam.

- 14.Presented a paper entitled "Corrosion Inhibitory Action of Artabotrys hexapetalus Leaves Extract on The Corrosion of Mild Steel in Acidic Medium" held on 11th November 2020 in the International Conference on Chemical and Environmental Research (ICCER-2020) organized by the PG & Research Department of Chemistry, Jamal Mohamed College (Autonomous), Tiruchirappalli.
- 15.Presented a paper entitled "Artabotrys hexapetalus Leaves Extract as a green corrosion inhibitor for Mild Steel in 1.0 M HCl" held on 03rd & 4th February 2021 organized by "International Virtual Conference on Frontiers in Chemical Research-ICFCR'21", Bishop Heber College, Tiruchirappalli.
- 16. Presented a paper entitled "Exploring Syzygium aqueum aqueous leaves extract as a green corrosion inhibitor for mild steel in acid medium" held on 07th & 08th October 2021 in the Indo-South Korea International e-Conference on "Nanoscience and Nanotechnology for Energy, Environment and Biomedical Applications" organized by "Vinayaka Missions Kirupananda Variyar Arts and Science College, India in association with Gyeongsang National University, Republic of Korea.
- 17. Presented a paper entitled "Evaluation of Corrosion Inhibition Performance of *p*-Semidine-Guanidine-Formaldehyde Resin for Mild Steel in Acid Medium" held on 29<sup>th</sup> & 30<sup>th</sup> November 2021 in the International E-Conference on Sustainable and Futuristic Materials (SFM-2021), International research centre, J.M Patel Arts and Science College, Bhandra and Kamala Nehru Mahavidyalaya, Nagpur.
- 18. Presented a paper entitled "Corallocarpus epigaeus leaves extract for corrosion inhibition in acid medium" in the International Conference on Frontiers in chemical research (ICFCR'22- 2022), Bishop Heber College, Tiruchirappalli, held on 03<sup>rd</sup> & 04<sup>th</sup> February 2022.
- 19. Presented a paper entitled "*Barleria cristata* leaves extract for corrosion inhibition in acid medium" in the 7<sup>th</sup> International Conference on Innovations in chemical and Environmental Research (ICICER- 2022), Jamal Mohamed College, Tiruchirappalli, held on 25<sup>th</sup> May 2022.
- 20. Presented a paper entitled "Corrosion inhibition using *Amaranthus dubius* leaf extract as corrosion inhibitor for mild steel in acid medium" in the 7<sup>th</sup> International Conference on Innovations in chemical and Environmental Research (ICICER- 2022), Jamal Mohamed College, Tiruchirappalli, held on 23<sup>rd</sup> & 24<sup>th</sup> August 2022.
- 21. Presented a paper entitled "Corrosion Inhibition using *Amaranthus dubius* leaf Extract as an Eco-Friendly Corrosion Inhibitor" Materials Science for Sustainable Environment (ICMSSE-2022), PG and Research Department of Chemistry, Holy Cross College, Trichy-2 held on 23-08-2022 & 24-08-2022.
- 22. Presented a paper entitled "The Green Synthesis of nanoparticles using *Costus* pictus Leaf Extract Blended with paint and its Potential Applications" Indo-South organized by (iNEEBA 2022) Vinayaka Missions Kirupananda Variyar Arts and Science College, India held on 24-11-2022 & 25-11-2022.
- 23. Presented a paper entitled "Mitigation of Mild steel Corrosion in Acid Medium by Green Inhibitor" organized by PG Department of Environment Science, Holy Cross

### Details of Seminars / Conferences / Workshops Participated:

- 1. Participated a seminar on "Modern Techniques in Chemistry" held on 5th and 6th March 2008, organized by PG & Research Department of Chemistry, Jamal Mohamed College, Tiruchirappalli.
- 2. Participated UGC sponsored State Level Seminar on **"Frontier Studies in Chemistry"** held on 9th and 10th February, 2010, organized by PG & Research Department of Chemistry, Jamal Mohamed College, Tiruchirappalli.
- 3. Participated in the State Level Seminar on "New Vistas in Chemistry" (NVS-2012) held on 4th and 5th January 2012, organized by the PG & Research Department of Chemistry, Jamal Mohamed College (Autonomous), Tiruchirappalli.
- 4. Participated in the National Level Conference on "Current Scenario in Material Chemistry" (CSIMC-2015) held on 9th and 10th February 2015 organized by the PG & Research Department of Chemistry, Jamal Mohamed College (Autonomous), Tiruchirappalli.
- 5. Participated in the One -day workshop on **"The Role of a teacher in the present scenario"** held on 10th December 2016 organized by the PG & Research Department of Chemistry, Jamal Mohamed College (Autonomous), Tiruchirappalli.
- 6. Participated on Three-day "NLP-Based Faculty Empowerment Programme", held on 17, 19 & 20th June 2017 organized by the Internal Quality Assurance Cell, Jamal Mohamed College, Tiruchirappalli (College Level).
- 7. Participated in the National Level Conference on "National conference on Advances in Innovative Materials for Energy and Environment (AIMEE-2017)", held on 13<sup>th</sup> October 2017 organized by SRM University, Ramapuram, Chennai, Tamil Nadu.
- 8. Participated in the National Level Conference on **"Emerging trends in Material science"**, held on 7th February 2018 organized by Department of Physics, Chemistry and Electronics, Erode Arts and Science College (Autonomous), Erode, Tamil Nadu.
- 9. Participated on Intercollegiate Extravaganza "Symphoria'18", held on 20th February 2018 organized by the PG & Research Department of Chemistry, Jamal Mohamed College (Autonomous), Tiruchirappalli (State Level).
- 10.Participated on UGC CPE Sponsored Two-Day Workshop on **"Professional Development for Academic Leadership in Curriculum Design"** held on 18 & 19<sup>th</sup> January 2019 organized by Curriculum Development Cell, Jamal Mohamed College (Autonomous), Tiruchirappalli.
- 11. Participated on "Staff Enrichment Programme on Ownership Culture", held on 14<sup>th</sup> June 2019 organized by the Internal Quality Assurance Cell, Jamal Mohamed College, Tiruchirappalli. (College Level).

- 12.Participated in the One day Seminar on "Recent Advances in Chemical Sciences (RACS-2020)" held on 2nd March 2020 organized by the PG & Research department of Chemistry, Urumu Dhanalakshmi College, Tiruchirappalli.
- 13.Participated in the International Virtual Conference on "Global Added Burdens of Diseases and Food Security" held on 5th January 2021 organized by the PG & Research Department of Nutrition and Dietetics & B.Voc., Food Processing and Safety, Jamal Mohamed College (Autonomous), Tiruchirappalli.
- 14.Participated in the "2nd Indo-Korea Virtual Conference on Development of Advanced Materials for Future Technologies (DAMFT 2021)" held on 14th & 15th May 2021 jointly organized by KAIST, DAEJEON, South Korea & Vellore Institute of Technology, Chennai, India.
- 15.Participated in the "International Virtual Conference on Recent Trends in Materials Science (ICRTMS-2021)", held on 20<sup>th</sup> & 21 December 2021 organized by Bannari Amman Institute of Technology, Sathyamangalam.
- 16.Participated in the **"One day National Webinar on "Frontiers in Functional Materials"** held on 11<sup>th</sup> October 2022 organized by PG Department of Chemistry, Marudhar Kesari Jain College for Women, Vaniyambadi.

## **Details of Papers Published:**

- 1. "Synthesis and Biological Study of Mannich Base Derived from Benzimidazole" Coromandal Journal of Science, 1(1), 55-56, 2012.
- 2. "Potential of Croton bonplandianum as a green corrosion inhibitor against mild steel in acid medium" Journal for Advanced Research in Applied Sciences, 5(1), 391-403, 2018 (International).
- 3. "Mild steel corrosion inhibition by aqueous leaves extract of Scoparia dulcis in acid medium" World Journal of Pharmaceutical Research, 7(1), 1094-1108, 2018 (International).
- 4. **"Plant extracts as corrosion inhibitors-A Review"** European Journal of Biomedical and Pharmaceutical Sciences, 5(3), 192-198, 2018 (International).
- 5. "Mild Steel Corrosion Inhibition by the Aqueous Extract of Commelina benghalensis Leaves" Portugaliae Electrochimica Acta, 37(1), 51-70, 2019 (International).
- 6. **"Pouteria campechiana as a green Corrosion Inhibitor for Mild steel in HCl solution"** Journal of Pharmacy and Biological Sciences, 9(2), 55-61, 2019 (International).
- 7. "Electrochemical studies of mild steel corrosion inhibition in acid medium by Mukia Maderaspatana leaves Extract" International Journal of Research and Analytical Reviews, 6(1), 225-232, 2019 (International).
- 8. **"Costus pictus as a green corrosion inhibitor for mild steel in acid Medium"** International Journal of Basic and Applied Research, 9(3), 566-575, 2019 (International).

- 9. "Andrographis echioides leaves extract as a eco-friendly corrosion inhibitor for mild steel in acid medium" Materials Today: proceedings, 47(9) 2080-2090, 2021 (International).
- 10. "Evaluation of Inhibitive Performance of Allamanda cathartica Leaves Extract as Green Corrosion Inhibitor on Mild Steel in Acid Medium" Materials Today: proceedings, 47(9) 2036-2047, 2021 (International).
- 11. "Evaluation of Corrosion Mitigation Behaviour of Bombax Ceiba Leaves Extract" Applied Biochemistry and Biotechnology", Applied Biochemistry and Biotechnology 2022 (International) DOI: 10.1007/s12010-022-03925-5.

## Number of Conferences / Webinars / Workshops Participated: 50

### Orientation / Refresher Courses / FDPs attended (online / offline):

- 1. Attended **"Medical Laboratory Techniques"** held from 16-04-2020 to 17-04-2020 organized by Department of Microbiology and Biotechnology, AVS College of Arts and Science, Ramalingapuram, Salem.
- 2. Attended **"Household Electrical Devices and Appliances"** held from 20-04-2020 to 21-04-2020 organized by Department of Physics, AVS College of Arts and Science, Ramalingapuram, Salem.
- 3. Attended Three Days Online Workshop on **"The Role of Language and Researcher"**, held from 27-04-2020 to 29-04-2020 organized by Department of English, Immaculate College for Women, Viriyur, Kallakurichi.
- 4. Attended Online Faculty Development Programme on "G Chem paint and Libre office suite writer" held from 04-05-2020 to10-05-2020 organized by Department of Chemistry, D.K.M. College for Women, Vellore, Tamil Nadu in association with Spoken Tutorial Project, IIT Bombay, MHRD, Govt. of India.
- 5. Attended Online Faculty Development Programme on **"Outcome Based Education"** held on 05-05-2020 organized by InPods-Edtech.
- 6. Attended "Chemdraw online workshop for Skill Development and Career Advancement" held on 05-05-2020 organized by Genesin of Educational Impression, Roorkee, Uttarakhand, India.
- 7. Attended One Day Online Course on **"The Essence of Research Methodology"** held on 16-05-2020 to 17.05.2020 organized by PG Department of Commerce, Jamal Mohamed College (Autonomous), Trichy.
- 8. Attended Two Day Online Course on **"The Essence of Research Methodology"** held on 16-05-2020 to 17.05.2020 organized by PG Department of Commerce, Jamal Mohamed College (Autonomous), Trichy.
- 9. Attended Online Workshop on "Personality Development" "Unlearn to Learn the **Skill**" held on 19-05-2020 organized by PG and Research Department of Commerce, National College (Autonomous), Trichy.
- 10.Attended Online Training Course on **"Bee Keeping"** held from 19-05-2020 to 23-05-2020 organized by PG and Research Department of Zoology, Adirampattinam, Thanjavur District.

- 11. Attended FDP on "Strengthen your resilence during Covid-19", held from 01-06-2020 to 07-06-2020, organized by PG and Research Department of Commerce, Thanjavur.
- 12. Attended FDP on **"Recent advances in Nanomaterials"**, held from 04-06-2020 to 06-06-2020 organized by St. Joseph's College of Engineering, Chennai.
- 13. Attended FDP on "Outcome Based Education (OBE)" held on 11-07-2020 organized by PG and Research Department of Commerce, Cauvery College for Women (Autonomous), Tiruchirappalli, Tamil Nadu.
- 14. Attended FDP on "Plagiarism in Research and Publications and How to Prevent it" held on 22-07-2020 organized by PG and Research Department of Commerce, Cauvery College for Women (Autonomous), Tiruchirappalli.
- 15. Attended Orientation programme on "Effective Implementation of part-V Extension Activities for the Club Advisors" held on 08-12-2020 organized by Jamal Mohamed College (Autonomous), Tiruchirappalli.
- 16. Attended FDP on "ICT Tools for Chemistry Teachers", held on 22-02-2021 organized by Guru Angad Dev Teaching Learning Centre, University of Delhi.
- 17. Attended FDP on **"Recent Trends in Electrochemical Energy Devices"**, held on 18-03-2021 organized by Postgraduate and Research Department of Chemistry, Vivekanada College, Tiruvedakam West, Madurai, Tamil Nadu under UGC-CPE.
- 18. Attended FDP on "MDP on International Entrepreneurship Summit 'AVLOKAN 2.0' 2022" held on 10-01-2022 to 12-01-2022 and 17-01-2022 to 22-01- 2022 organized by Faculty Research Cell Gyanidhi & SRDC- Vidhyanidhi, CMS, Jain (Deemed-to-be University).
- 19. Attended Six Days FDP on **"Advances in Analytical Techniques"** held from 25-07-2022 To 30-07-2022 organized by Department of Chemistry, SRM Institute of science and Technology, Ramapuram campus, Chennai.
- 20. Attended International FDP on "**Foremost Frontiers of Materials Science**" held from 12-09-2022 To 20-09-2022 organized by Department of Physics, Sathyabama Institute of science and Technology, Chennai
- 21. Attended One Day FDP on **"Prevalence of Fluoride and its Optical Detection"** held on 24-01-2023 organized by PG and Research Department of Chemistry, Jamal Mohamed College, Trichy-20

Date: 06.04.2023 (B. ARIFA FARZANA)