

**Dr. A. SAMSATHBEGUM, M.Sc., M.Phil., Ph.D., Dip. in Hindi**



**ASSISTANT PROFESSOR OF CHEMISTRY**

**RESEARCH ADVISOR**

### Contact

**Address** : P.G & Research Department of Chemistry (SF)  
Jamal Mohamed College (Autonomous)  
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Tamil Nadu, India.

**Employee No.** : JMCMTS5065

**Date of Birth** : 01. 06. 1985

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### Academic Qualification

**2019** : Ph.D. Chemistry, Jamal Mohamed College,  
Bharathidasan University, Trichy.

**2009** : M. Phil. Chemistry (I Class-Distinction), Prist University, Tanjore

**2007** : M. Sc. Chemistry (I Class-Distinction), Bishop Heber College,  
Bharathidasan University, Trichy.

**2005** : B.Sc. Chemistry (I Class-Distinction), Holy Cross College,  
Bharathidasan University, Trichy.

**2005** : Diploma in Hindi, Central Hindi directorate,  
New Delhi, Government of India

### Teaching Experience

Degree	Designation	From	To	Total teaching experience years	Institution
UG & PG	Assistant professor	2012	Till date	10	Jamal Mohamed College Trichy-20

## Area of Specialization

- ✚ Physical Chemistry
- ✚ Analytical Chemistry
- ✚ Green chemistry

## Research Area of Interest

- ✚ Corrosion studies
- ✚ Phytochemical studies
- ✚ Ionic liquids
- ✚ Microwave assisted synthesis
- ✚ Bio - Green Nano Synthesis

## Research Advisorship

- ✚ Research advisor for Ph.D., Programme in Bharathidasan University  
[Ref No. 028084/Ph.D./K12/Chemistry/R.A/16.08.21]

## Research Identity

- Citation : 08
- h- index : 02
- Google scholar web page : [https://scholar.google.com/citations?hl=en&user=B4k\\_xcYAAAAJ](https://scholar.google.com/citations?hl=en&user=B4k_xcYAAAAJ)
- Research ID : <http://researchid.co/samsathshanavas>
- Orcid ID : <https://orcid.org/0000-0002-4352-3974>

## Projects Guided

DEGREE	Awarded	Pursuing	Academic year
MSc., Chemistry	30	3	2012-2022
MPhil., Chemistry	-	1	2021-2022
Ph.D., Chemistry	-	-	From 2021

## Online Courses (SWAYAM/NPTEL)

- ✚ **Online Refresher Course in Chemistry for Higher Education ARPIT** (FEB 2020)
- ✚ **Basics in Inorganic Chemistry** (DEC 2020)
- ✚ **Industrial Inorganic Chemistry** (SEP 2021)

## Responsibilities Undertaken

### ✚ **Acted as a Jury in Science Quiz**

National Science Day Celebrations-2022 [25 to 28 FEB 2022]

Jamal Mohamed College, Trichy

### ✚ **Assistant secretary**

Chemistry Association [2019-2021]

Department of Chemistry (SF), Jamal Mohamed College, Trichy

### ✚ **Acted as a Judge for E-Poster presentation**

National Nutrition Week Celebration Nutrizione'21 [22 -Sep-2021]

Association of Nutrition and Dietetics & B.Voc.Food Processing and Safety

Jamal Mohamed College, Trichy

### ✚ **Acted as a Judge for vegetable and fruit carving**

National Nutritional Month Celebration (Rashtriya Poshan Maah) [18 -Sep-2021]

Association of Anti-Dowri & National Service Scheme

Jamal Mohamed College, Trichy

### ✚ **Organizing committee member**

Inter-collegiate Extravaganza "JAM CHEM FEST-2K20" [27-Feb-2020]

PG & Research Department of Chemistry, Jamal Mohamed College, Trichy

### ✚ **Organizing committee member**

State level Symphoria-19 [13-Feb-2019]

PG and Research Department of Chemistry, Jamal Mohamed College, Trichy

### ✚ **Organizing committee member**

State level Symphoria-18 [20-Feb-2018]

PG and Research Department of Chemistry, Jamal Mohamed College, Trichy

### ✚ **Organizing committee member**

State level Symphoria-17 [31-Jan-2017]

PG and Research Department of Chemistry, Jamal Mohamed College, Trichy

**+ Organizing secretary**

Intra-Department Extravaganza “CHEM-FIESTA’19 [18 -Sep-2019]  
PG& Research Department of Chemistry, Jamal Mohamed College, Trichy

**+ Acted as a Judge for oral presentation**

National Nutrition Week Celebration Nutrizione’19 [18 -Sep-2019]  
Association of Nutrition and Dietetics & B.Voc.Food Processing and Safety  
Jamal Mohamed College, Trichy

**+ Tutor in charge**

Undergraduate [2013-2019] & Postgraduate Women Students [2019-2021]  
Department of Chemistry, Jamal Mohamed College, Trichy

**+ Internal and External Examiner**

Practical Examinations in various Colleges [2018 to 2021]  
Bharathidasan University, Trichy

**+ Examiner**

Conducted at Jamal Mohamed College, Trichy [2015-2020]  
Central Valuation for Bharathidasan University, Trichy

**+ Handling Moral Instruction classes**

Undergraduate & Postgraduate Women Students [2018 to 2021]  
Jamal Mohamed College, Trichy

### Details of Patent Filed

Title of the Patent is filed	Date of Filing	File Number
Design and biological study on new anti-inflammatory hybrid derivatives	06/02/2022	202241006304

### Details of Book Written

Title of the Book	Full book / Specific Chapter	Publisher	Edition	ISBN
Chemistry: The Central science	Full book	Scientific International Publishing House(SIPH)	First edition 2022	978-93-5625-095-6

## Details of Scientific publications

	International	National
Research Article Published	11	02

➤ **International Journal of Biology, Pharmacy and Allied Sciences (IJBPAS)**

10(11), 1225-1232 2021

**Title:** Synthesis and Characterization of 1-(4-Chloro-Phenyl)-5-Phenyl-Pent-1-En-3-One Substituted Chalcones Using Aldol Condensation by H<sub>2</sub>SO<sub>4</sub> / ETOH.

➤ **International Journal of Corrosion Scale Inhibition**

10(4), 1531-1546, 2021

**Title:** Inhibition of mild steel corrosion in 0.5 M sulfuric acid by an aqueous extract of leaves of *Tectona grandis* L. plant

➤ **Coatings (MDPI)**

11(106), 1-23, 2021

**Title:** *Spilanthes acmella* Leaves Extract for Corrosion Inhibition in Acid Medium

➤ **Indian Journal of Natural Sciences**

12(67), 33696-33711, 2021

**Title:** Thermodynamic, Adsorption and Electrochemical Studies of Mild Steel in 0.5 M HCl solution using Green Inhibitor.

➤ **Asian Journal of Chemistry**

33(9), 2219-2228, 2021

**Title:** Corrosion Inhibition of Mild Steel in 0.5 M H<sub>2</sub>SO<sub>4</sub> Solution by Plant Extract of *Annona Squamosal*

➤ **Indian Journal of Natural Sciences**

12(66), 32309-32323, 2021

**Title:** Electrochemical Studies and Surface Characterization of Dipropyl Sulphide on Zinc Metal in 0.5 N HCl

➤ **Aegaeum Journal**

8(9), 1101-1113, 2020

**Title:** Corrosion Inhibition by Aqueous Extracts of *Artabotrys hexapetalus* Plant Leaves in 1.0 M Hydrochloric Acid Solution

➤ **International Journal of pharmacy and biological sciences**

9 (2), 26-33, 2019

**Title:** Aqueous Extract of *Commelina ensifolia* Leaves as Sustainable Green Inhibitor for Corrosion on Mild Steel in 1.0 M H<sub>2</sub>SO<sub>4</sub>

➤ **International Journal of Basic and Applied Research**

9(2), 438-450, 2019

**Title:** *Abrus precatorius* Leaf Aqueous Extract as a Corrosion Inhibitor on Mild Steel in 1.0 M HCl Solution

➤ **European Journal of Biomedical and Pharmaceutical Sciences**

5(2), 859-863, 2018

**Title:** Aqueous Extract of *Cyclea peltata* Leaves as Corrosion Inhibitor for Mild Steel in 1.0 N H<sub>2</sub>SO<sub>4</sub> by employing isotherms.

➤ **Iaetsd Journal for Advanced Research in Applied Sciences**

5 (2), 807-820, 2018

**Title:** Assessment of Aqueous Extract of *Commelina ensifolia* Leaves as Corrosion Inhibitor on Mild Steel Corrosion in 1.0 N HCl Medium.

➤ **World Journal of Pharmaceutical Research**

6, 17, 1072-1100, 2017

**Title:** Corrosion Inhibition by Aqueous Extract of *Tephrosia villosa* Leaves

➤ **International Journal of Recent Scientific Research**

8(12), 22343-22348, 2017

**Title:** An Overview of Plant Extracts as Green Inhibitor for Preventing Corrosion

## Details of Papers Presented

Research Papers Presented	International	National	State
	13	08	01

- **International Conference on Chemistry Frontiers & Challenges** [5 to7-Jan -2022].  
PSGR Krishnammal College for Women, Coimbatore, Tamil Nadu  
**Title:** Electrochemical studies and surface characterization of Dipropyl sulphide on zinc metal in 0.5N Hydrochloric acid
- **International Conference on Frontiers in Chemical Research** [3, 4-Feb -2022].  
Bishop Heber College, Trichy  
**Title:** Anticorrosive studies of hydrophylla auriculata plant leaves against mild steel in 1.0N HCl acid medium by electrochemical and weightloss method
- **International Conference on Futuristic Aspects of Sensors and Biosensors** [3, 4-Mar -2022].  
**Holy Cross College, Trichy**  
**Title:** Anticorrosive studies of aqueous extract of Hygrophylla auriculata plants leaves as sustainable corrosion inhibitor against mild steel in 0.5M H<sub>2</sub>SO<sub>4</sub> acid medium
- **International Conference on Frontiers in Chemical Research** [3, 4-Feb -2021].  
Bishop Heber College, Trichy  
**Title:** Corrosion resistant effect and Surface characterization of Zinc Metal in 0.5 N HCl by using Dipentyl Sulphide (DPeS)
- **International Conference on Chemical & Environmental Research** [12-Nov -2020].  
Jamal Mohamed College, Trichy  
**Title:** Corrosion inhibition by aqueous extracts of *Artabotrys Hexapetalus* plant leaves in 1.0 M Hydrochloric Acid solution
- **National Conference on Recent Trends in Materials Science** [14-Feb-2020].  
Thiru. Vi. Ka Government Arts College, Thiruvarur, Tamilnadu  
**Title:** Synthesis of green luminescent carbon quantum dots from plant seeds using microwave Irradiation method

- **International Conference on Challenges to Environmental Health** [30-Jan -2020]  
PG & Research Department of Zoology, Jamal Mohamed College, Trichy  
**Title:** Green synthesis of corrosion inhibitor from *Gnetum africanum* leaves
  
- **National Seminar on Advanced Materials** [23 –Jan-2020].  
PG & Research Department of Physics, Jamal Mohamed College, Trichy  
**Title:** Electrochemical evaluation: Inhibitory effect of aqueous extract of green banana peel on the Corrosion of mild steel in 0.5M H<sub>2</sub>SO<sub>4</sub>
  
- **International Conference on Chemical & Environmental Research** [08-Jan-2020]  
Jamal Mohamed College, Trichy  
**Title:** *Luffa acutangula* leaves extract as an eco-friendly corrosion inhibitor of mild steel in 1.0 M HCl
  
- **National Conference on Recent Trends in Chemistry of Materials** [11,12-Oct - 2019]  
Bannari Amman Institute of Technology, Erode  
**Title:** *Chrozophora rotteleri* leaves extract as an eco-friendly corrosion inhibition 0.5M H<sub>2</sub>SO<sub>4</sub> Medium
  
- **National Conference on Advanced Topic sin Physics** [6-Mar-2019].  
Jamal Mohamed College, Trichy  
**Title:** Synthesis and spectral characterization of novel metal complexes
  
- **International Conference on Emerging Trends in chemical sciences** [6-Sep -2019].  
Arulmigu Palani Andavar Arts College For women, Palani  
**Title:** *Chrysanthemum morifolium* Leaves extracts as an eco-friendly corrosion inhibitor of mild Steel in 1.0M H<sub>2</sub>SO<sub>4</sub>
  
- **International Conference on Recent trends in chemistry** [10-Jan -2019]  
Dr.R.K.Shanmugam College of Arts and Science, Kallakurichi  
**Title:** Corrosion Inhibition by naturally occurring *Achillea millefolium* plant extract on mild steel In 1.0 N HCl solution



- **National Conference on Emerging trends in Chemical and Biological Sciences** 4-Jan -19  
D.K.M.College for women, Vellore  
**Title:** Inhibition action of *Achillea millefolium* plant leaves extract on mild steel corrosion in 1.0N H<sub>2</sub>SO<sub>4</sub> solution
  
- **International Conference on Chemical and Environmental Research** [07-Jan-2017].  
Jamal Mohamed College, Trichy  
**Title:** Potential of *Tephrosia vogelii* plant leaves aqueous as a green corrosion inhibitor against Mild steel in acidic media
  
- **International Conference on Chemical and Environmental Research (ICCER-2018)** [19-Dec-2018].  
Jamal Mohamed College, Trichy  
**Title:** *Rumex dentatus* leaves extract as a Corrosion Inhibitor for mild steel in 1.0M H<sub>2</sub>SO<sub>4</sub>
  
- **National Conference on Chemical and Environmental Research** [20- Dec- 2018]  
Jamal Mohamed College, Trichy  
**Title:** *Trichosanthes cucumerina* leaves extract as a Corrosion Inhibitor for mild steel in 1.0 M HCl
  
- **National Conference on Advances in innovative materials for Energy and Environment**[13-Oct 17]  
Department of Chemistry, SRM University, Ramapuram campus  
**Title:** Assessment of aqueous extract of *Commelina ensifolia* leaves as corrosion inhibitor on Mild steel Corrosion in HCl medium
  
- **International Conference on Chemical and Environmental Research** [17-Dec-2015]  
Jamal Mohamed College, Trichy  
**Title:** Electrochemical studies of *Tephrosia villosa* leaves extract as green corrosion inhibitor for Mild Steel in acidic medium
  
- **International Conference on Chemical and Environmental Research** [ 11,12–Mar-2014]  
Jamal Mohamed College, Trichy  
**Title:** Corrosion inhibition of mild steel using *Enicostema auxillare* leaves extract in HCl solution

➤ **National Conference on Current trend in Chemistry Research** [27, 28-Feb -2013]

Jamal Mohamed College, Trichy

**Title:** *Delonix elata* leaves extract as corrosion inhibitor for mild steel in hydrochloric acid Solution

➤ **Seminar on Emerging trends in chemistry** [9-Mar -2006].

Bishop Heber College, Trichy

**Title:** Preparation and spectroscopic characterization of some metal complexes with azide ion and benzotriazole ligands

### Details of Seminars / Conferences Participated

- ✚ **Global Added Burdens of Diseases and Food Security** organized by PG and Research Department of N & D and B. Voc., Food processing and safety at Jamal Mohamed College, Trichy [05 -Jan-2021][International Conference]
- ✚ **New Pathways In Chemistry** organized by the Department of Chemistry of N.G. Acharya & D.K. Marathe College of Arts, Science & Commerce [23 & 24-May-2020] [International Conference]
- ✚ **Global summit of advanced trends in materials chemistry GSATMC – 2020** organized by Department of Chemistry, Cauvery College for women, Trichy [1&2- Jul-2020] [International Conference]
- ✚ **Recent advances in chemical sciences (RACS- 2020)**, organized by PG and Research Department of Chemistry, **Ururu Dhanalakshmi College**, Trichy [02-Mar-2020] [Seminar]

### Details of Faculty Development Programme

- ✚ **Research Essentials** organized by department of computer science and Engineering, at Chandigarh University, Gharuan, Mohali, Punjab (India)[ 31-Jan to 05-Feb-2022]
- ✚ **Effective Teaching** organized by Balaji College of Engineering &Technology, Jaipur [20 to 24- Dec-2021].
- ✚ **Emerging Trends in Chemistry** organized by the Department of Chemistry, Kongu Engineering College, Perundurai, Erode [13 to 15-Dec- 2021].
- ✚ **Art of Writing in Indexed Journal Publications** organized by the IQAC, Jamal Mohamed College, Trichy [21 to 25 - June - 2021].
- ✚ **Art of Writing in Indexed Journal Publications** organized by the Department of Library in association with Internal Quality Assurance Cell, Jamal Mohamed College , Trichy [28-Jul- 2021].
- ✚ **Digital Classroom**, conducted under DBT star College Scheme by the PG and Research Department of Chemistry, Jamal Mohamed College, Trichy [23& 24- June - 2020].

- ✚ **E- Content Programme** organized by the IQAC, Jamal Mohamed College, Trichy [30 May to 04 - June -2020].
- ✚ **The Ability to Write Research Proposal** organized by AIMIT [International level] [24- Apr- 2020].
- ✚ **Outcome Based Education** organized by Inpods Education Tech [01-May- 2020]
- ✚ **Gchem Paint and Libreoffice Suitewriter** organized by Department of Chemistry, D.K.M. College for Women, Vellore in association with Spoken Tutorial Project, IIT Bombay, MHRD, and Govt. of India [04 to 10- June - 2020] [National Level].
- ✚ **Digital Tools for Smart Classrooms in Higher Education** organized by Jayaraj Annapackiam College for Women, Periyakulam [6 & 7-May-2020] [National Level]
- **Challenges in ICT Education** organized by Bon Secours College for Women, Thanjavur [07- May - 2020] [National Level]
- **Research, Funding Projects & IPR** jointly organized by IQAC, R & D cell & Department of Electronics & Telecommunication under the banner of IETE and Institution's Innovation Council (IIC) of K.C. College of Engineering and Management Studies and Research, Thane [07 to 10- May -2020] [National Level]
- **Effective Usage of ICT Tools for Smart Teaching** organized by Jayaraj Annapackiam College for Women, Periyakulam [09 to 14- May -2020] [National Level].
- **Web Application Security** organized by Department of Information Technology, Jeppiaar Institute of Technology [27 & 28 - May - 2020].
- **Mental Wellbeing in Personal and Professional Life** organized by Nehru Institute of Management Studies (NIMS) [28 - May - 2020] [International Level]
- **Social Entrepreneurship** organized by K.P.B. Hinduja College of Commerce, Mumbai, and Department of Bachelor of Management Studies (BMS) in association with Edfly [28- May - 2020] [National Level]
- **Advanced Molecular Chemistry** organized by PG & Research Department of Chemistry, Arulmigu Palaniandavar College of Arts & Culture, Palani [01 to 03 -June- 2020].
- **Advanced Materials and their Applications** organized by the PG & Research Department of Chemistry, Auxillium College, Vellore [02 to 06 -June-2020].
- **Institutional Benchmarking of Best Practices** organized by 10 premier Institutes of India, Hosted by Dnyan Prabodhini Mandal's, Shree Mallikarjun & Shri.Chetan Manju Desai College, Canacona [8 to 14 -June- 2020].
- **Teacher the Ultimate & New Challenges In International Trade** organized by the Department of Management Studies (MBA), Dhanalakshmi Srinivasan Engineering College, Perambalur [12- June- 2020] [National Level]
- **Road Map to Get a Quality Patent** organized by the Department of Electrical and Electronics Engineering, AMET Deemed to be University [13 - June - 2020] [National Level]

- **Funding Schemes and Patenting Scientific Innovations** organized by the IQAC and PG & Research Department of Chemistry, Government Arts College, Trichy [13- June - 2020].
- **Advanced Materials for Sustainable Development** organized by Department of Science and Humanities, Dr. N.G.P. Institute of Technology, Coimbatore [15 to 19- June -2020].
- **Improving Teaching Practices – a strategic approach**, organized by the IQAC cell, Jamal Mohamed College, Trichy [23- June - 2018]
- **NLP Based Faculty Empowerment Programme** organized by the **IQAC cell**, Jamal Mohamed college, Trichy [17 to 20 - June - 2017].

### Details of orientation /Online Courses / Workshop Participated

- ✚ Workshop on **Production and formulation of Bioinoculants**, organized by PG & Research Department of Microbiology, Jamal Mohamed College in association with IQAC Trichy [31 - March-2022][State level]
- ✚ Orientation Programme on **Free E-Resources** organized by the Department of Library in association with Internal Quality Assurance Cell, Jamal Mohamed College, Trichy [29 - July-2021]
- ✚ Orientation Programme on **E-Learning and Tools for Effective Teaching and learning** organized by Jnan Vikas Mandal's Degree College, Airoli in Collaboration with Edfly [29 -May-2020][International- online]
- ✚ Workshop on **Self Development** Organized by Department of Business Administration, Sri Sarada Niketan College of Science for Women, Karur [20 &21- Apr- 2020].
- ✚ Workshop on **The Role of Language and Researcher**, organized by the Department of English, Immaculate College for Women, Viriyur [27to29- Apr -2020]. [International-online]
- ✚ Training on **Moodle Learning Management System Training** Organized by Vidyavardhini College of Engineering and Technology, Spoken Tutorial Project, IIT Bombay [27- Apr- 2020 to 2 -May-2020] [National-online]
- ✚ Online Workshop on **Chemdraw for Skill Development & Career Advancement**, organized by Genesin of Educational Impressions, Roorkee, Uttarakhand, India [5 - May - 2020] [National-online]
- ✚ Workshop on **Smart Research**, organized by IQAC, Government First Grade College, Kanakapura, [7 to 9 - May -2020]. [National-online]
- ✚ Workshop on **Basic Course in NMR Spectroscopy Software**, organized by Genesin of Educational Impressions, Roorkee, Uttarakhand, India, 17- May -2020. [National-online]
- ✚ Workshop on **Space Science**, organized by Space Education and Research Foundation Ahmedabad, India [18 to21 - May - 2020] [International-online]
- ✚ Training on **E – Learning Through PowerPoint Presentation** conducted by Department of Chemistry, Vivekananda College of Arts and Science For Women (Autonomous), Tiruchengode [26-May -2020 [online]

- ✚ Training on **Food Processing Techniques** organized by PG and Research Department of Nutrition and Dietetics, Jamal Mohamed College, Trichy, [10 & 11-03 2020].
- ✚ Basic Training on **Human Rights** sponsored by the National Human Rights commission, New Delhi and Organized by PG and Research Department of Social Work, Jamal Mohamed College, Trichy [ 12-Feb-2020].
- ✚ Orientation Programme on **Mooc's And E-Learning** organized by **Department of Library**, Jamal Mohamed College, Trichy, [29-Oct-2020].
- ✚ Workshop on **Application of Open Sources For Statistical Analysis In Educational Researches** (AOSSAER-2019) organized by Department of Education, CDE, Bharathidasan university, Trichy held on [29- Nov- 2019] [National]
- ✚ Staff Enrichment Programme on **Ownership Culture** organized by the **IQAC cell**, Jamal Mohamed College , Trichy [1 4 - J u n - 2019]
- ✚ Workshop on **Professional Development for Academic Leadership in Curriculum Design** organized by Curriculum Development cell, Jamal Mohamed College , Trichy [18 & 19 -Jan-2019]
- ✚ Workshop on **Organic farming production** (An Entrepreneurship Programme) organized by PG and Research Department of Microbiology, Jamal Mohamed College, Trichy [27& 28-Jan- 2017] [ State level ].
- ✚ Intercollegiate Workshop on **E-content development for teaching – learning** organized by IQAC cell, Jamal Mohamed College, Trichy [22-Dec- 2015].
- ✚ Participated in **symposium on nanoparticles** organized by Department of Chemistry, Bishop Heber College, Trichy [ 6 & 7-Oct- 2006] [National level].

## Strengths and Skills

- ✓ Self-motivated ,driven and hardworking
- ✓ Team work and coordination
- ✓ Working with a multitude skills
- ✓ Working without any time constraint

## Declaration

I hereby by declare that the above and foresaid information are true to the best of my knowledge.

**(Dr. A. SAMSATHBEGUM)**