

**Bio-date**

**Name** : T.UMA SANKARESWARI  
**Department** : CHEMISTRY  
**Date of Birth** : 30-05-1969  
**Education qualifications** : M.Sc.,M.Phil.,B.Ed., Ph.D.,  
**Area of Specialization** : Corrosion  
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**ACADEMIC PROFILE**

| No. | Degree  | Institution/ University/Board                                         | Year of Passing | Class |
|-----|---------|-----------------------------------------------------------------------|-----------------|-------|
| 1.  | UG      | Standard Fire work College, Sivakasi Madurai Kamaraj University       | 1990            | First |
| 2.  | PG      | Annamalai University,Chidambaram                                      | 1997            | First |
| 3.  | M.Phil. | Ayya Nadar Janaki Ammal College , Sivakasi Madurai Kamaraj University | March 1999      | First |
| 4.  | B.Ed    | Annamalai University,Chidambaram                                      | 2006            | First |
| 5.  | Ph.D.   | Bishop Heber College ,Trichy Bharathidasan University                 | 2013            | First |

**Ph.D Thesis :** Investigation of the inhibitive influence of some Schiff bases on the Alkaline corrosion of Aluminium.

### **TEACHING PROFILE**

| No.                               | Name of the Institution                   | Designation & Department         | From      | To        | Total Years     |
|-----------------------------------|-------------------------------------------|----------------------------------|-----------|-----------|-----------------|
| 1.                                | Manjammal Polytechnic College             | Lecturer in Chemistry            | Aug 2000  | May 2003  | 3 Years         |
| 2.                                | Stella Mary's B.Ed College                | Lecturer in Chemistry            | June 2006 | May 2009  | 3 Years         |
| 3                                 | S, Verrasamy chettiar college,Puliyangudi | Lecturer in Chemistry            | 2010      | 2011      | 1 year          |
| 4.                                | Rajapalayam Rajus' College                | Assistant Professor in Chemistry | Oct 2013  | Till date | 12 years        |
| <b>Total Teaching Experience:</b> |                                           |                                  |           |           | <b>19 years</b> |

### **RESEARCH PROFILE**

#### **RESEARCH INTEREST**

Electrochemical sensors and nano films

#### **RESEARCH PUBLICATIONS: Links to**

##### **publications Scopus link**

<https://www.scopus.com/authid/detail.uri?authorId=55414149600>

##### **Scholar google**

[https://scholar.google.com/citations?view\\_op=list\\_works&hl=en&user=7V-yOJIAAAAJ](https://scholar.google.com/citations?view_op=list_works&hl=en&user=7V-yOJIAAAAJ)

#### **List of publications by the Co- Investigator**

1. Extracts of leaves as corrosion inhibitors- An overview and corrosion inhibition by an aqueous extract of henna leaves, N.R.Devi, T.UmaSankareswari et.al, Int. J. Corros. Scale Inhib., 9(4), (2020)1169-1193.
2. Inhibition of corrosion of mild steel in sea water by an aqueous extract of turmeric powder, T.UmaSankareswari et al, Int. J. Corros. Scale Inhib., 9(2), (2020) 706-725.
3. Influence of roseday-5 tablet on corrosion resistance of SS 316L in artificial saliva, N, T.UmaSankareswari, et al Int. J. Corros. Scale Inhib.,9(2), (2020) 595-606.

4. Influence of Metformin Hydrochloride- 250 mg (MFH) tablet on Corrosion resistance of orthodontic wire made of NiCr alloy in artificial saliva, T.UmaSankareswari,et.al J. Chemical Sci. and Chemical Engg., (2020) DOI number: <http://dx.doi.org/10.47890/JCSCE/SRAJENDRAN/2020/10082111>
5. Corrosion resistance of orthodontic wire made of SS 316L alloy in artificial saliva in the presence of amlodipine tablet by electrochemical studies, N.Karthiga and T.UmaSankareswari, Zastita Materijala 61 (3), (2020) 251 – 258.
6. Corrosion Resistance of Stainless steel 18/8 Alloy in Ringer's Lactate in the presence and absence of sodium chloride, T.Umasankareswari et.al, Int. J. Nano. Sci, Corr.Sci and Engg.,7(2), (2020) 23-33.
7. Green solution to corrosion problems -at a glance, S.Rajendran, T.UmaSankareswari, et.al, Int. J. Corros. Scale Inhib., 8(30), (2019) 437-479.
8. Corrosion problems in electronic systems, ZASTITA MATERIJALA, 60, (2019).
9. Effect of SDS on the Corrosion Inhibition efficiency of EDTA –Zn<sup>2+</sup> System for Carbon Steel in an aqueous solution, T.UmaSankareswari, et.al, Int. J.Nano. Corro. Sci.Engg. 4(2), ( 2017)25-38.
10. Influence of chloride ion in Corrosion inhibit mild steel in simulated concrete pore solution overview, A. Suriyaprabha, T.UmaSankareswari, et.al, J. Nano. Corr. Sci. Engg. 4(2), (2017) 41-81.
11. Thermo Active Ni-Ti Super Elastic Shape Memory Alloy vs 22K old Alloy Which is More Corrosion Resistant in Artificial Saliva in Presence Jamun (Naaval Pazham or Syzyium cumini) Fruit Juice, S.Priyadharsini, T.Umasankareswari,et.al, Der Pharma Chemica, 9(11), (2017)112-116.
12. Corrosion Resistance of Metallic Glasses, Susai Rajendran, T.UmaSankareswari et.al, J. Nano. Corr. Sci. Engg. 3(1), (2015) 48-59.
13. Corrosion Resistance of Mild steel in simulated produced water in presence of sodium potassium tartrate, A.Christy Catherine Mary , T..Uma Sankareswari et al, Int. J. Nano. Corr. Sci. and Engg, 2(1) (2015).
14. Utility of an aqueous extract of Beets (Beta Vulgaris l)as Corrosion inhibitor for Carbon steel in well water, T.UmaSankareswari , Int. J. Nano. Corr.

Sci. and Engg, 2(5), (2015)255-269.

15. Corrosion Inhibition by flower extracts-An overview, T.UmaSankareswari et.al, J. Nano. Corr. Sci. Engg., 2(3), (2015) 14-21.
16. Corrosion Resistance of Mild steel in simulated Concrete pore solution in presence of chloride Ion –an Overview, P.NithyaDevi,T.UmaSankareswari, Port. Electrochim. Acta, 33, (2015) 195-200.
17. Corrosion Inhibition by Self assembling Monolayers on Carbon Steel, S.Rajendran, T.Umasankareswari,et.al, Innovation in Corrosion and Materials Science, 5, (2015) 113-117.
18. Corrosion inhibition by dyes from plants, V. Johnsirani, T.UmaSankareswari et.al, Int. J. Nano. Corr. Sci. Engg., 2(3), 2015 22-28.
19. Salicylideneaniline as inhibitor for the corrosion of mild steel in 1.0N hydrochloric acid, T.UmaSankareswari, T.Jeyaraj, J. Chem. Pharm. Res., 4 (7), (2012) 3414-3419.
20. Inhibition effect of vanillideneanthranilic acid on the corrosion of aluminium in 1.0 N NaOH, T.UmaSankareswari, T.Jeyaraj, Pelagia Research library Der Chemica Sinica, 3(5), (2012) 1252-1259.
21. Inhibition influence of salicylideneaniline on the corrosion of aluminium in 1.0 N NaOH, T.UmaSankareswari, T.Jeyaraj, Pelagia Research library Arch. Appl. Sci. Res., 4(5), (2012)2133-2140.

#### **BOOKS / CHAPTER PUBLISHED**

1. Hydrophobicity and Corrosion inhibition.  
ISBN: 978-3-330-05340-3 Publisher: LAMBERTS Academic. (2017)
2. Corrosion Inhibitors for Cooling Water Systems  
ISBN: 978-620-2-07051-5 Publisher: LAMBERTS Academic. (2017)
3. Indian Nobel Laureates  
ISBN: 978-620-2-92039-1 Publisher: LAMBERTS Academic. (2020)
4. Nanotoxicity: Chapter 6 – Toxicity of silver and other metallic nanoparticles  
ISBN: 978-0-12-819943-5 Publisher: Elseiver. (2020)
5. Nanosensors for smart Agriculture Section II: Nanosensors for oliquality and control Chapter -9 Soil moisture nanosensors

- ISBN: 978-0-12-8245545-5 Publisher: Elseiver. (2022)
6. Basic Aspects of organic photochemistry  
ISBN: 978-620-4-97734-8- Publisher: LAMBERT Academic (2022)
7. Nanocomposites 13 & 14 chapters  
13. Uses of Nanocomposites  
14. Caly supported Titaninum Dioxide Nanocomposites as Photocatalysts  
ISBN: 978-981-4968-17-1 Publisher: Jenny Stanford (2022)
8. ABC of corrosion, Cirrosion Glossary A-Z  
ISBN: 978 620 5 52811 2 Publisher: LAMBERT Academic (2022)

### **Seminar / webinars attended / organized**

1. Attended National Level Online Faculty Programme - Murugappa Polytechnic College, Chennai, 14.06.2021-20.06.2021.
2. Training on Professional Development Programme IQAC Rajapalayam Rajus" College, Rajapalayam 23.07.2021-30.07.2021.
3. Participated in Two days National level Virtual Workshop Central University of Haryana and Skill Slate Foundation, Pune 5.03-2022- 06.03.2022.
4. Attended National seminar Theresa"s College for Women 14.03.2022.
5. Hands - on training on International Faculty Development Programme IQA C Rajapalayam Rajus" College, Rajapalayam 1.07.2021- 7.07.2021.
6. Training on FDP in SRM Institute of Science and Technology Chennai and Association of Chemistry teachers in Mumbai 16.05.2022.
7. Served as convener to organize one day State Level Webinar on "Building an impactful Career in Sciences" conducted by Department of Chemistry on 06.08.2021.
8. Participated more than 30 webinar in online mode.

### **Participation in Examinership**

1. External Examiner (Practical) in VVV College, Virudhunagar College for Women, Virudhunagar Devagar college, Aruppukottai
2. Question paper setter in Arul Andavar College ,Devanga Arts College, Aruppukottai , V.V.V. College for women, Virudhunagar, etc.,
3. Valuation - Madurai Kamaraj University.

## **ORIENTATION & REFRESHER COURSES PARTICIPATED**

1. UGC sponsored orientation programme entitled „Teaching Methodology' from 27-10-2015 to 23-11-2015, by UGC Academic Staff College, Madurai Kamaraj University, Madurai, Tamil Nadu.
2. UGC sponsored Refresher course entitled, „Ecology and Environmental Sciences ( Interdisciplinary)“ from 24-05-2017 to 13-06-2017, by UGC Academic Staff College, University of Madras, Chennai, Tamil Nadu.
3. UGC Sponsored Refresher Course in Physical Sciences and Nano Sciences by the UGC – Human Resource Development Centre, Jawaharlal Nehru University, New Delhi from 18-11-2019 to 30-11-2019.
4. UGC-HRD sponsored Refresher Course (Online mode) on, “Recent Advances in Chemical Sciences” conducted by the UGC – Human Resource Development Centre, Dr. Harisingh Gour University, Sagar, Madhya Pradesh from 17-08-2020 to 29-08-2020.
5. UGC-HRD sponsored Refresher Course (Online mode) on, “Recent Advances in Chemistry” conducted by the UGC – Human Resource Development Centre, Bharathiyar University, Coimbatore from 10-12-2020 to 23-12-2020.
6. UGC-HRD sponsored Refresher Course (Online mode) on, “Refresher course in Chemistry” conducted by the UGC – Human Resource Development Centre, Pondicherry University, Pondicherry from 05-07-2023 to 18-07-2023.

## **ACADEMIC POSITIONS HOLD ( Rajapalayam Rajus' College)**

1. Member, Internal complaint Cell (June 2015 to 2016 ).
2. Member, Discipline Committee in-charge ,WDC (October 2013 to May2023).
3. Member, Fine Arts club ( June 2021 to till date)
4. Girl's Hostel Deputy Warden ( June 2021 to till date)

5. Co-ordinator - WDC (June 2023 to till date)
6. Students Grievance Redressal Cell - Co-ordinator ( June 2023 to till date).
7. Member - Taaliim ( October 2024 to till date)
8. Member, Gender Sensitization Cell (June 2025 to till date)