

## T.K.ARUMUGAM

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### Academic background:

Degree	College/University	Year	Class
Ph.D.	Department of Analytical Chemistry, University of Madras.	1994 – 1998	--
M.Sc.	Gurunanak College, Madras University of Madras	1992	First
B.Sc.	Pachaiyappa's College, Madras University of Madras	1990	First

### Achievements:

- "Smt Annapurna Award" for the year 1997 for the Best Paper (Published in Bulletin of Electrochemistry) in the field of 'Corrosion and its prevention'.
- Best paper award** for the research article "Electrochemical Behaviour of Hydroxyapatite coated stainless steel implants" presented at the 7th National Convention of electrochemists awarded by "The society for advancement of electrochemical science and technology" (SAEST) held at Shivaji University, Kholapur in 1996.
- Qualified in Graduate Aptitude Test of Engineering (GATE-94), an all India Test for higher level learning.

### Research and Work Experience:

- One year of Research Experience in Pradeep Drug Company, Maraimalai Nagar, Tamil Nadu, as "Research Assistant". Involved in the research process of Erythromycin drugs.
- Five years of experience in the field of Biomedical materials. Involved in the study of corrosion testing of biomaterials and related processes- the project sponsored by DST and CSIR, India, worked in Department of Analytical Chemistry, University of Madras.
- Worked as a lecturer in Chemistry department, Anand Institute of Higher Technology, Kazhipattur, Old Mahabalipuram Road, Chennai, from Sep.2000 to April 2005.
- Worked as a Senior Lecturer in Department of Applied Chemistry, Sri Venkateswara College of Engineering, Sriperumbudur, Chennai, from June 2005 to July 2009.

- e. Worked as an Assistant Professor in Department of Chemistry, Thiru Govindasamy Government Arts College, Tindivanam, from July 2009 to August 2011.
- f. Working as an Assistant Professor in Department of Chemistry, Dr. Ambedkar Government Arts College, Vyasarpadi, Chennai from August 2011 to till date.

### **Paper Publications:**

1. T.K.Arumugam, S.Rajeswari and M.Subbaiyan  
"Invitro electrochemical investigations on titanium stabilized stainless steels for Applications as orthopaedic implants" Bulletin of electrochemistry, 13(3), (1997), P-103.
2. T.K.Arumugam, S.Rajeswari and M.Subbaiyan  
"Electrochemical behaviour of advanced stainless steel implant material in saline physiological solution with calcium phosphate and protein"  
Trans Indian Inst.Met., 1998, p.417-420.
3. T.M.Sridhar, T.K.Arumugam, S.Rajeswari and M.Subbaiyan  
"Electrochemical behaviour of hydroxyapatite-coated stainless steel implants"  
J.Mat.Sci.Let. 16 (1997), p.1964.
4. S. Jegannathan, T.K. Arumugam, T.S.N. Sankara Narayanan, K. Ravichandran,  
"Formation and characteristics of zinc phosphate coatings obtained by electrochemical treatment: Cathodic Vs Anodic. Progress in Organic Coatings, 65 (2009) 229-236.
5. H.Jayasantha kumari ,T.K.Arumugam , P.Krishnamoorthy , " Adsorption of basic dye on low cost Typha Latifolia Bioremediator Stem Carbon: Isotherm, Kinetic and Equilibrium Studies" International journal of Advance research in Science and Engineering, 4(1) (2015) 246-256.
6. H.Jayasantha kumari , T.K.Arumugam, P.Krishnamoorthy, "Kinetics, Thermodynamics And Isotherm studies on the Removal of Chromium by Typha latifolia bioremediator Stem Carbon", Journal of Mater. Environ. Sci., 6(6) (2015) 1532-1541.
7. H.Jayasanthakumari., P.Krishnamoorthy., T.K.Arumugam, Removal of Rhodamine B from aqueous solution by Activated carbon prepared from the Natural plant Typhalatifolia by adsorption: Kinetic and Isotherm study, International Journal of Chem Tech Research, 7 (7) (2015) 2867-2874.

### **Proceedings at National Conference:**

1. T.K.Arumugam, S.Rajeswari and M.Subbaiyan  
"Invitro electrochemical investigations on super austenitic stainless steels for applications as orthopaedic implants" Trans 10th National conference of society of biomaterial and artifical organs (1998) p.61.
2. T.K. Arumugam, K. Suresh Kumar Danadurai, T.M. Sridhar, S. Rajeswari and M. Subbaiyan "Electrochemical characterization of orthodontic materials in the oral environment" Biomedical Materials and Devices, Transactions of the 10th National

Conference of Society for Biomaterials and Artificial Organs (1998) p.57.

**Papers presented at National and International conferences:**

1. "Effect of proteins on invitro polarisation of 316L stainless steel" by T.K.Arumugam, V.S.Gayathri, S.Rajeswari and M.Subbaiyan at 'Symposium on new vistas on electrochemists', Jan. 1995, IGCAR, Kalpakkam.
2. "Invitro electrochemical investigations on titanium stabilized stainless steels for application as orthopaedic implants" by T.K.Arumugam, S.Rajeswari and M.Subbaiyan at 'Sixth National Convention of Electrochemists', CECRI, Karaikudi, 20-21 Dec. 1995.
3. "Electrochemical behaviour of advanced stainless steel implant material in saline Physiological solution with calcium phosphate and protein" by T.K.Arumugam, S.Rajeswari and M.Subbaiyan at 'Electrochemistry in Metallurgy and Materials Science', August 21-23, 1996, Bangalore.
4. "Invivo electrochemical investigation of nitrogen bearing stainless steel as orthopaedic implants" by T.K.Arumugam, S.Rajeswari and M.Subbaiyan at '9th AGM of Materials Society of India', IIT, Chennai 11-13 Feb. 1998.
5. "A comparison of invitro and invivo electrochemical investigation of stainless steel Material as orthopaedic implant" by T.K.Arumugam, S.Rajeswari and M.Subbaiyan at '6th International Symposium on Advanced Electrochemical Science and Technology' 26-28 Nov. 1998 Chennai.
6. "Adsorption of Basic Dye on Low cost Typha latifolia bioremediator Stem Carbon: Isotherm, Kinetic and Equilibrium Studies", (RACE-2014) by H.Jayasantha kumari , T.K.Arumugam, P.Krishnamoorthy at SRM University (Guindy Campus), Chennai, 21 Nov. 2014.
7. "Removal of Rhodamine B from aqueous solution by Activated carbon prepared from the Natural plant Typhalatifolia by adsorption: Kinetic and Isotherm study", ICEWEST-2015, H.Jayasanthakumari.,P.Krishnamoorthy.,T.K.Arumugam at Presidency College Chennai, 05 Feb. 2015.

**Workshop and Seminar Attended:**

1. 29<sup>th</sup> National workshop on Radiochemistry & Applications of Radioisotopes conducted by Dept. of Analytical Chemistry, University of Madras, Chennai, 26<sup>th</sup> Feb to 7<sup>th</sup> March 1997.
2. Workshop on Multimedia and Internet Techniques for Effective Teaching conducted by School of Computer Science and Engineering, Anna University, Chennai, Feb. 10 and 11, 2001.
3. Faculty Development Programme on Environmental Engineering conducted by Department of Chemical Engineering, A.C. College of Technology, Anna University, Chennai, Dec 13-18,2004.

4. National Seminar on “Nano Science and Technology – Challenges Ahead” organized by Department of Chemistry, associated with IGCAR, Kalpakkam, Velammal Engineering College, 19<sup>th</sup> August 2008.
5. International Conference on Modern Trends in Materials Technology – 2009, organized by Sri Venkateswara College of Engineering, Pennalur, Sriperumbudur, Chennai, 19-20 January 2009.
6. Orientation Course –Intensive Training Programme Organized by TamilNadu State Council For Higher Education and UGC Academic Staff College, University of Madras, for new recruited Government College Lecturers, July 9<sup>th</sup> to August 5<sup>th</sup> 2009.
7. Training Course on Industrial Cooling Water Systems (CWS- 2010) conducted by Anna University, Chennai, 20-21 August 2010.
8. National Seminar on Thrust Areas in Chemistry, conducted by Department of Chemistry, Government Arts College (Men), Nandanam, Chennai, 16<sup>th</sup> Feb. 2012.
9. UGC Sponsored Refresher Course Organized by UGC Academic Staff College, University of Madras, “Refresher Course in Chemistry, Batch – XXII” held from 24.07.2012 to 13.08.2012.
10. Workshop on Chromatographic Techniques, conducted by Department of Analytical Chemistry, University of Madras, Chennai – 25 on 25<sup>th</sup> February 2013.
11. National Seminar on The Concepts of Green Chemistry, organized by Department of Chemistry, Valliammai Engineering College, Kattankulathur, on 16<sup>th</sup> November 2013.
12. National Seminar on Quality in Higher Education: Issues & Challenges, organized by Punjab and Chandigarh college teachers union, GGSDS College, Chandigarh, 14-16<sup>th</sup> Nov. 2014.
13. UGC Sponsored State Level Seminar on Thrust Areas in Chemistry (STAC – 2015), conducted by Department of Chemistry, Government Arts College (Men), Nandanam, Chennai, 12<sup>th</sup> March 2015.
14. Acted as JUDGE for the District Level Science Exhibition conducted by Department of School Education, Government of Tamil Nadu held at ST. THERESA GIRLS HR.SEC.SCHOOL, Pallavaram, Chennai, 3<sup>rd</sup> Sep. 2015.
15. State level seminar on “Higher Education for All” organized by Tamilnadu Government College Teachers Association, at University of Madras, 12<sup>th</sup> Oct. 2015.

#### **Membership in Professional Bodies:**

1. Life Member in “Indian Society of Analytical Scientists” and served as a Treasurer during the period 1995-2000.

2. Life Member in "The Society for Advancement of Electrochemical Science and Technology" – Madras Chapter.