CURRICULUM- VITAE



Name : Dr.V.RAJ

Date of Birth : 03-06-1968

Designation : Professor and Head

Address for communication : Department of Chemistry

Periyar University Salem-636 011

Permanent Address :69 Kamaraj Nagar

Alagunatchiapuram-627 754

Tirunelveli District TAMIL NADU, INDIA

Educational Qualifications

Degree	University	Subject	Year	% of
				marks
B.Sc.	Madurai Kamaraj University	Chemistry	1988	82.6
	Madurai			
M.Sc.	do	Chemistry	1991	68.1
Ph.D	do	Organic Chemistry	1999	

Title of Ph.D Thesis : STUDIES ON LINEAR FREE ENERGY

RELATIONSHIPS

Additional Qualifications

- 1. Certificate in 'Introduction to Computers & Basic Programming'
- 2. Passed 'PRAGYA' in Official Hindi

Honors and Awards

Sl.No	Name of the Award	year	Awarding authority
1	Junior Research Fellowship	1991	CSIR-UGC, New Delhi
2	Senior Research Fellowship	1993	CSIR, New Delhi
3	Bright student award (SSLC)	1983	Govt. of Tamil Nadu
4	First rank	1987	SRNM College, Sattur

- 1. College first rank in English(B.Sc.)
- 2. College second rank in Chemistry and Tamil (B.Sc.)
- 3. Received **Best International Review paper award** for the year 2003 by CECRI, Karaikudi
- 4. Awarded young scientist fellowship by DST-FTPYS, 2003
- 5. **Bharath Shiksha Ratan Award** by Global Society for Health & Educational Growth, New Delhi, 2010
- 6. **Best paper award** in International Seminar on Functional Foods and Health (ISFAH-2011), Periyar University, Salem
- 7. **Best Paper Awards** (Second and Third prize) in NSNANO-2011, Sree Narayana College, Kollam, October 12-14, 2011
- 8. **Rashtriya Gaurav Award** by India International Friendship Society, New Delhi, 2012
- 9. **Best Citizens of India Award**, by International Publishing House, New Delhi, 2012
- 10. **Bharath Excellence Award and Gold Medal**, by Friendship Forum of India, New Delhi, 2013
- 11. **Glory of India Award and Certificate of Excellence** by India International Friendship Society, New Delhi, 2013
- 12. **Best paper Award**, Second Prize in CAMET-2013, SRKMV, Coimbatore, July 2013

Research Experience:

Institution	Designation	Period	Area of Research	
VHNSN College	JRF & SRF	1-9-1991 to	Physical Organic	
Virudhunagar	(CSIR)	31-8-1996	Chemistry-Kinetics,	
			Catalysis and	
			Spectroscopy	
CECRI, Karaikudi	Scientist	21-11-1997 to	Anodising, Plating,	
		2-12-2004	Polishing, Polymer	
			coatings	
Periyar University, Salem	Reader	3-12-2004 to	Advanced Materials,	
		02.12.2007	Electrochemistry,	
			Medicinal Chemistry	
Periyar University, Salem	Associate	3-12-2007 to	Advanced Materials	
	Professor	02.12.2010	Electrochemistry	
			Medicinal Chemistry	
Periyar University, Salem	Professor	3-12-2010 to til	Advanced Materials	
		date	Electrochemistry	
			Medicinal Chemistry	

Research areas of interest

- 1. Electrochemistry
- 2. Conducting polymers
- 3. Advanced Nanomaterials
- 4. Medicinal Chemistry
- 5. Phytochemistry

Publications : 79
Books : 5
Patents applied : 2
No.of Papers presented : 126
No. of PDF guided : 1
No.of Ph.D. scholars guided : 8

No. of Ph.D. scholars guiding : 10 (SRF -4, INSPIRE-1, JRF-1, URF-1)

No.of M.Phils. produced : 43

No. of Projects completed : 10 (65 lakhs)

No. of Ongoing Projects : 2 (CSIR-1, DST-1) 38 lakhs

No.of Seminars organized: 19No.of Seminars attended: 60No.of invited lectures delivered: 90No.sessions chaired in seminars: 8Referee for journals: 30

Previous Positions

Institution	Designation	Period	Subject and Course
VHNSN College Virudhunagar	CSIR-JRF	From 1-9-1991 to 31- 08-1993	Inorganic Chemistry for B.Sc.
VHNSN College Virudhunagar	CSIR-SRF	From 1-9-1993 to 30- 11-1996	Inorganic Chemistry for B.Sc.
SN College, Madurai	Lecturer	From 12-12-1996 to 20-11-1997	All chemistry subjects for B.Sc. and Physical Chemistry for M.Sc.
CECRI, Karaikudi	Scientist	From 21-11-1997 to 2-12-2004	Engineering Chemistry and Anodizing for B.Tech. Course.
Periyar University Salem	Reader	From 3-12-2004 to 2.12.2007 date	Physical Chemistry
Periyar University Salem	Associate Professor	From 3-12-2007 to till date	Physical Chemistry
Periyar University Salem	Head (I/C) Department of Chemistry	From 26-07-2008 to 2.12.2008	Physical Chemistry
Periyar University Salem	Controller of Examinations(I/C)	From 16-03-2010	NA
Periyar University Salem	Deputy Controller of Examinations(I/C)	From 27-01-2010 to 29.08.2010	NA
Periyar University Salem	Head (I/C) Department of Chemistry	From 01-06-2012 to 21.10.2012	Physical Chemistry
Periyar University Salem	Professor and Head Department of Chemistry	From 22-10-2012 to till date	Physical Chemistry

Honorary Assignments

xxi)

- i) **Member, Senate,** Periyar University
- ii) Member, Standing Committee, Periyar University
- iii) Member, Standing Committee, SC/ST Cell, Periyar University
- iv) **Member, Selection committee**, Appointment of Professor, Associate Professor, and Guest Lecturers in Chemistry and Biochemistry
- v) Chairman, Selection Committee, Appointment of JRFs, SRFs, PFs, URFs
- vi) **Chairman, Department committee,** Periyar University
- vii) Chairman, Admission Committee, for M.Sc., M.Phil., Ph.D. admissions
- viii) Chairman, Periyar University Chemistry Alumni Association (PUCAA)
- ix) Chairman, Periyar University Chemistry Parents-Teachers Association (PUCPTA)
- x) **Member, Scrutinizing Committee**, Appointment of Chemistry and Biochemistry Guest lecturers
- xi) **Member, Scrutinizing Committee,** Admission for M.Sc. and M.Phil. courses, Periyar University
- xii) **Chairman, Board of studies**, PG and M.Phil. Chemistry, Periyar University Affiliated Colleges (2012-15)
- xiii) **Chairman, Board of studies**, PG and M.Phil. Chemistry, Periyar University Departments(2012-15)
- xiv) **Member, Board of studies**, PG and M.Phil. Biochemistry, Periyar University (2008-09 and 2012-15)
- xv) University Representative, Academic Council, Sri Sarada College, Salem(2009-2011)
- xvi) **Chairman (Adhoc), Board of Question setters**, B.Sc, M.Sc. Chemistry, PRIDE practical examinations, December 2008
- xvii) Secretary, Electroplating and Metal Finishing Group, SAEST
- xviii) **Chairman (Adhoc), Board of studies,** PG and M.Phil. Chemistry, Periyar University (2008-09)
- xix) **Member, Board of studies**, PG and M.Phil.Chemistry, Sri Sarada College, (2011-2013)
- xx) **Member, Board of studies**, PG and M.Phil.Chemistry, Govt.Arts College, Salem-7 (2011-2013)
- xxii) Camp Officer, UG Arts Valuation Camp, From 18.11-2009 to 17.1.2010
- xxiii) Convener, Robing Hall arrangements, Periyar University 11th 12th Annual Convocations
- xxiv) Convener, Eletrical and Civil Maintenance of Convocation Hall, Periyar University 11th 12th Annual Convocations
- xxv) **Convener**, Video and Photography, periyar University 9th and 10th Annual Convocations
- xxvi) **Convener**, Accommodation Committee, 12th Tamil Science Congress, Periyar University, Aug.2012
- xxvii) **Convener**, Printing invitations, Former President Abdul Kalam's Visit to Periyar University, Nov.2012

- xxviii) **Member,** Traffic and Security Committee, Periyar University 6th, 7th and 8th Annual Convocations
- xxix) **Member**, Weight Verification Committee, Loading of Old papers, covers for sale (2012,2013)
- xxx) **Stock verification officer**, Biochemistry department (2005,2006, 2007), Ladies Hostel (2008,2009), Computer science department (2010,2011) and Office of Controller of Examinations (2012,2013)
- xxxi) Chief Superintendent for M.Sc. and M.Phil. Chemistry Examinations
- xxxii) Chief Superintendent for B.Ed. Examinations, Periyar University, May 2008.
- xxxiii) **Additional Chief Superintendent,** PRIDE Examinations, Nagercoil, Pondicherry Aug & Oct 2009.
- xxxiv) Member, SC/ST Cell, Periyar University (2010-12)
- xxxv) Observer in Central Law College, Salem for B.L. Examinations of Dr. Ambedkar law University, May-2005
- xxxvi) Course Co-ordinator for 2 years 2003 and 2004 for 2 refresher courses Conducted by CECRI
 - a. Refresher Course on Anodizing of Aluminium and its alloys
 - b. Refresher Course on Colouring of Metals
- xxxvii) **Member of the Inspection commission** for granting affiliation to the colleges for the courses B.Sc. M.Sc. and M.Phil. Chemistry
- xxxviii) **Member, Advisory Committee**, Department of Environmental Science, 2004-05
- xxxviii) **Member, Local Area Environment Committee**, Tamil Nadu Pollution Control Board, Salem. (2005-06)
- **xxxix)Member, Doctoral committee** for many scholars of Periyar, Bharathidasan, Bharathiar, Alagappa, VIT and Anna Universities

xxxx)Member, Project Evaluation Committee, Sona College of Technology xxxxi)External examiner for M.Sc. and M.Phil. Chemistry of Bharathidasan, Alagappa, Madurai Kamaraj, Manonmaniam Sundaranar, Gandhigram Rural Institute, Bharathiar and Sri Venkateswara Universities and M.Tech.Nanoscience and Technology of KSR College of Technology and Ph.D. Chemistry of Manonmaniam Sundaranar and Alagappa Universities

xxxxii)Question paper setter for M.Sc. and M.Phil. Chemistry of Alagappa University, Madurai Kamaraj University, Bharathidasan and Bharathiar University and M.Tech. Nanotechnology of KSR College of Technology

xxxxiii)Chief Editor, Science Explore, SELPTRUST Publications xxxxiv)Chief Editor, Chemical Research Letters, Periyar University Publications

xxxxv)Referee for 30 journals

Journal of Hazardous Materials
Applied Surface Science
Surface and Coatings Technology
Journal of Corrosion Engineering Science and Technology
Journal of Applied Polymer Science
Portugalea Electrochmica Acta

Journal of Nanoscience and Nanotechnology

Medicinal Chemistry Research

Materials Letters

Journal of Surface Engineering Materials and Advanced Technology

Journal of Condensed Matter Physics

Arabian Journal of Chemistry

Journal of Molecular Structure

Meterials Research Bulletin

International Journal of Medicinal Plants Research

Separation and Purification Technology

Journal of Bacteriological Research

African Journal of Environmental Science and Technology

Journal of Materials and Environmental Science

Journal of Surface Science and Technology

Journal of Environmental Science and Technology

Research Updates in Polymer Science

Global Research Journal of Agriculture and Biological Sciences

Indian Journal of Engineering and Materials Sciences

Global Research Journal of Microbiology

Medical Practice and Reviews

Journal of Physics and Chemistry of Solids

Journal of Food Science and Technology

International Journal of Physical Sciences

American Chemical Science Journal

Advanced Materials and Interfaces

Social Activities

- 1. Helping poor students by taking tuition free of cost to score high marks in examinations
- 2. Guiding poor students to appear for competitive examinations, NET, GATE etc.
- 3. Giving career guidance to all my students free of cost
- 4. Providing health tips and environmental awareness to my village people
- 5. Giving study materials free of cost to poor students
- 6. Providing magazines, G.K. subjects and other books necessary for competitive examinations to poor village students of my village
- 6. Giving free education to illiterate aged people in my village
- 7. **Member**, SC/ST Cell, Periyar University
- 8. **Secretary**, Students and Employees Association (SEA), 1989-91
- 9. **EC Member**, CECRI SC/ST Employees Federation, 1999-2000
- 10. Returning Officer, Elections of CECRI SC/ST Employees Federation, 2000-01
- **11. Treasurer,** Periyar University Teachers Association (2008-10)
- 12. **Treasurer**, Anandham Enclave House Owners Welfare Association (2009-11).
- 13. **Member,** Tamil Nadu University and College SC/ST Teachers Association
- **14. Member,** Periyar University SC/ST Staff Association

Extra Curricular Activities

- 1. Won Gold medals in Villupattu, University level, Madurai Kamaraj University (1987 and 1988)
- 2. Won Silver medal in Folk dance, Zonal Level, Madurai Kamaraj University(1987)
- 3. Won Bronze medal in College Quir, University Level, Madurai Kamaraj University (1989)
- 4. First prize in Vocol Solo, SRNM College, Sattur (1988)
- 5. Won first prize in Tamil Elocution, RC Middle School (1979).

ANNEXURES

Projects completed

C1 N	D 1	D : wid	D .:	F 1'	
Sl.No.	Role	Project title	Duration	Funding agency	Amount
1		II N' 1 IDI d	In years	NI C N 1	in lakhs
1	G I	Heavy Nickel Plating	2 (2001-	NLC, Neyveli	11.02
	Co-I	of Electrolyzer Cell	2003		
		Plates		DOM N. D. III.	0.6
2	DI	Formation of	3	DST, New Delhi	9.6
	PI	Transparent			
		Nanoporous Alumina			
		Films from Aluminium			
		Sputtered on Glass Substrate			
2	Col		2	Engraph	1.5
3	Co-I	Electropolishing of 420	2	Easystitch Needles,	1.5
		grade stainless steel		,	
	Co-I	Electropolishing of SS	1/4	Bangalore Roots	0.15
	C0-1	and Anodizing of Cast	1/4	Multiclean Ltd.,	0.13
		Al		Coimbatore	
		CNP02/11/TS		Combatore	
4	Co-I	Electropolishing of	1	Tufflon India	1.25
'		202/304 stainless steel	1	Interiors,	1.23
		racks		Bangalore	
		CNP 02/2004/TTBD		2 unguiore	
	Co-I	Electropolishing of SS	1/4	L.G.Balakrishna	0.21
		bush and Roller		&Bros.,	
		components		Coimbatore	
5	PI	Electropolishing of 304	1	Sai Engineering,	0.85
		stainless steel		Thirumazhisai	
		components			
		CNP08/2003/TTBD			
6		Colouring of Anodized	1	CECRI,	1.0
	Co-I	Aluminium and its		Karaikudi	
		alloys by Electroless			
		Technique			
7	PI	Hard Anodizing of	1	CVRDE, Avadi	0.46
		LCA Components			
8	Co-I	Wealth from Waste:	1	Salem-	0.52
		Production of ethanol		Dharmapuri	
		from sago solid waste		Chamber of	
				Commerce	
9	PI	Formation of Ceramic	3	UGC, New	4.31
		Alumina		Delhi	
		Nanocomposite			
		coatings on Aluminium			

		by Plasma Electrolytic oxidation			
10	Co-I	Carbon Nanotube Modified Electrodes for Enhanced Voltammetric Sensing of Organic Pollutants	3	DST, New Delhi (Collaborative)	32.47
11	Co-I	Synthesis of Nanocrystalline Nickel on Aluminium	2	UGC	1.75
12	Co-I	Synthesis of Nanocrystalline copper by pulse electrodeposition	2	UGC	1.80

Ongoing Projects

Sl.No.	Role	Project title	Duration	Funding	Amount
			in years	agency	in lakhs
1	PI	Fabrication of magnetic		CSIR, New	17.26
		and semiconductor	3	Delhi	
		nanostructures			
2	PI	Development of polymer			
		impregnated nanoceramic	3	DST, New	19.0
		coatings on metals for		Delhi	
		enhanced corrosion			
		resistance			

Workshops/Schools/Seminars Organised

- 1. All India Winter School on Microcomputers in Chemistry, VHNSN College, Virudhunagar, Nov.18-30, 1991
- 2. Inter Collegiate Seminar in Chemistry, VHNSN College, Virudhunagar, Aug.13&14 1994
- 3. Inservice Training to PG Chemistry Teachers, VHNSN College, Virudhunagar, Dec.26-30, 1995
- 4. UGC Conference on Recent Advances in Physical Organic Chemistry, VHNSN College, Virudhunagar, Mar.29, 1996
- 5. University-Industry Linkage Seminar on Membrane Technology Salem, March 11, 2005
- 6. One day Orientation programme for College Teachers on Environmental Education, Salem, March 15,2005.
- 7. Co-Convenor, National Seminar on Recent Advances in Nanoscience and Technology (RANSAT-2005), Salem, 29-30 September 2005.
- 8. Member, National Conference on Recent Advances in Chemistry (RAC-2007), Periyar University, Salem, March 1-2,2007.
- 9. Convenor, National Conference on Advances in Surface and Interface Analysis (ASIA-2007), Periyar University, Salem, December 2007.
- 10. Coordinator, National Conference on recent Advances in Metalloorganic Chemistry (RAMC-2008), Periyar University, Salem, October, 2008.
- 11. Member, National Seminar on Earth resources, Environment and Earth Sciences for Society, Periyar University, Feb 5-7, 2009
- 12. Member, National Conference on Recent Advances in Chemical Sciences (RACS-2009), Periyar University, Salem, March 2009.
- 13. Member, Seminar on Role of Periyar University in Social Welfare and Higher Education, Salem, July 2010.
- 14. Member, National Seminar on Frontiers in Organic Synthesis and Medicinal Chemistry (FOSMC-2011), Salem, Feb.2011

- 15. Executive Member, Recent Trends in Chemistry, Salem, Mar.2012
- Coordinator-Chemistry sessions of 12th Tamil Science Congress, 23-25
 Aug.2012, Periyar University
- 17. President-National Seminar on "Recent Trends in Advanced Materials" ERK College, Harur, 5th Aug.2012
- 18. Convener-Workshop on "Applications of Radioisotopes in Chemical Sciences (ARCS- 2012), Periyar University, 28th Sep.2012
- 19. International Conference on Biological Inorganic Chemistry, Salem, 20-22 Feb.2013.

Invited Lectures delivered

- 1-6. "Pretreatment of Aluminium for Anodizing," Refresher course on "Anodizing of Aluminium and its alloys", Conducted by CECRI every year from 1999 to 2004 (6 lectures)
- 7-12. "Chemical polishing of Aluminium", Refresher course on Anodizing of Aluminium and its alloys, Conducted by CECRI every year from 1999 to 2004 (6 lectures)
- 13-22. "Colouring of anodized aluminium" Refresher course on "Anodizing of Aluminium and its alloys" Conducted by CECRI every year from 1999 to 2004 (6 lectures) and "Colouring and Blackening of metals from 1999 to 2002 (5 lectures)
- 23-31. "Pretreatment of Aluminium", in Refresher courses on "Electroplating of Cu, Ni and Zn, Conducted by CECRI every year from 1999 to 2004 (6 lectures) on "Surface Engineering" (1 lecture), CECRI, 2001, and on Industrial Electroplating and Metal Finishing" (2 lectures), CECRI, 2002, 2003
- 32-37. "Industrial anodizing of Aluminium", Refresher course on Anodizing of Aluminium and its alloys, Conducted by CECRI every year from 1999 to 2004 (6 lectures)
- 38-41. "Pulse anodizing of Aluminium" Refresher course on Anodizing of Aluminium and its alloys, Conducted by CECRI every year from 2001 to 2004 (4 lectures)
- 42-51." Evaluation of anodic oxide coatings," Refresher course on Anodizing of Aluminium and its alloys, Conducted by CECRI every year from 1999 to 2004 (6 lectures) and on Testing of Electrodeposits from 2001 to 2004 (4 lectures)
- 52-55. "Electropolishing of stainless steel" Refresher course on Colouring and Blackening of metals, Conducted by CECRI every year from 1999 to 2002 (4 lectures)
- 56-61"Sealing of anodic oxide coatings" Refresher course on Anodizing of Aluminium and its alloys, Conducted by CECRI every year from 1999 to 2004 (6 lectures)

(Total 61 lectures at Refresher courses, CECRI Karaikudi)

- 62. "Future Prospects in Chemistry", Inaugural Address, Chemistry Association, Kandaswamy Kandar's College, P. Velur, Namakkal, 12-10-2006
- 63. "Chemistry in Nanotechnology", National Workshop on Recent Trends Nanotechnology and its applications, Sethu Institute of Technology, Madurai, 09-07-2007
- 64. "Nanochemistry", Inaugural Address, Association of Physical Sciences, SN College, Madurai, 08-01-2007

- 65. "Chemistry and Nanotechnology", Inaugural Address, Chemistry Association, Vellalar College, Erode, 31-08-2007.
- 66. "Nanoscience and Technology", Inaugural Address, Association of Physical Sciences, Sri Sarada College, Salem, 27-02-2009.
- 67. "UV-Visible Spectroscopy", Workshop on Spectroscopy, Vinayaka Missions University, Salem- 14-03-2009.
- 68. "Pollution Control Methods", One day Orientation programme for College Teachers on Environmental Education, Periyar University, Salem, March 15, 2005.
- 69. "Conducting Polymers", Workshop on Advanced Polymer Composites, Kamaraj College of Engineering and Technology, 05-12-2008
- 70. "Recent advances in conducting polymers", Inaugural Address, Chemistry Association, SRNM College, Sattur, March 2010
- 71. "Nano metals and metal oxides", National seminar on Emerging Trends in nanotechnology, SPK College, Alwarkurichi, Dec.22.2010
- 72. "Role of Chemistry in Nanotechnology" Refresher Course in Chemistry, Academic Staff College, Bharathiar University, Oct. 18, 2010
- 73. "Synthetic Organic Metals" Refresher Course in Chemistry, Academic Staff College, Bharathiar University, Oct.18, 2010.
- 74. "Role of Science in Engineering", Inaugural Address, Science Club, Ganesh College of Engineering, Sep.28, 2011
- 75. Nanoceramic coatings on aluminium, National Seminar on 'Emerging trends in Nanomaterials', Muthayammal College of Arts and Science, Rasipuram, Feb.2012
- 76. Importance of Chemistry, DST-INSPIRE programme, Jeyam College of Engineering, Dharmapuri, Feb. 25 2012.
- 77. Job opportunities in Chemical, leather and electronic industries, Entrepreneurship programme for SC/ST Unemployed Youth, PRIMS, Periyar University, Feb.24. 2012
- 78. Emerging Tends in Research in Chemistry, International Seminar on Emerging Trends in Research, TBAK College, Keelakarai, April 12.2012
- 79. Ceramic nanocomposite Coatings, Refresher course, Bharathiar University, May 09, 2012.

- 80. Conducting Polymers, Refresher course, Bharathiar University, May 09, 2012.
- 81. Advanced Materials, National Seminar on "Recent Trends in Advanced Materials", ERK College, Dharmapuri, 5th Aug.2012
- 82. Corrosion inhibition of aluminium by nanocoatings, National Seminar on Corrosion Inhibition by nanomaterials, Muthayammal Technical Campus, Rasipuram, June 14,.2012.
- 83. Career Opportunities in Chemistry, Inaugural address, Chemistry Association, KSR College of Arts and Science, Thiruchencode, Feb.25, 2013
- 84. Career Opportunities in Chemistry, Inaugural address, Chemistry Association, Vivekananda College of Arts and Science, Thiruchencode, Feb.27, 2013
- 85. Nanoceramic coatings, National Conference on Advanced Materials for the Emerging Technologies (CAMET-2013), Coimbatore, July 2013.
- 86. "Role of Chemistry in Nanotechnology" Refresher Course in Chemistry, Academic Staff College, Bharathiar University, Aug. 27, 2013
- 87. "Synthetic Organic Metals" Refresher Course in Chemistry, Academic Staff College, Bharathiar University, Aug. 27, 2013
- 88. Advanced Materials, National Seminar on "Recent Advances in Materials Science" RAMS-2013, Bharathiar College of Arts and Science, Attur, 6th Oct..2013
- 89. Career Opportunities in Chemistry, Inaugural address, Chemistry Association. Sri Sakthi Kailash College of Arts and Science for Women, Salem, Oct. 2013 90.

Sessions Chaired in Seminars/Conferences

- 1. National Seminar on Recent Advances in Textile and Electrochemical Sciences, Alagappa University, Karaikudi, June 2007.
- 2. National Seminar on Frontiers in Organic Synthesis and Medicinal Chemistry Periyar University, Salem, Feb.2011.
- 3. National Seminar on Emerging trends in nanomaterials SPEC-2012, Muthayammal College of Arts and Science, Rasipuram, Feb.2012
- 4. International Seminar on Emerging Trends in Research, TBAK College, Keelakarai, April 12.2012
- 5. 12th Tamil Science Congress, Chemistry Session , Periyar University, Aug.23-25, 2012
- 6. National Seminar on "Recent Trends in Advanced Materials", ERK College, Dharmapuri, 5th Aug.2012
- 7. National Seminar on "Recent Advances in Surface Science, Gandhigram Rural Institute, Gandhigram, 13,14 Feb.2013
- 8. National Seminar on "Recent Advances in Materials Science", Bharathiar College of Arts and Science for Women, Attur, 6th Oct..2013

Workshops/Schools/Seminars attended

- 1. All India Winter School on Microcomputers in Chemistry, VHNSN College, Virudhunagar, Nov.18-30, 1991
- 2. Seminar on Recent Advances in Chemistry, Vivekananda College, Thiruvedagam, Jan. 27 &28, 1993
- 3. Inter Collegeate Seminar in Chemistry, VHNSN College, Virudhunagar, Aug.13&14 1994
- 4. National Seminar on Recent Advances in Electrochemical Science, Alagappa University, Karaikudi, Dec.23 1994
- 5. National Seminar on Correlation Analysis in Chemistry, Annamalai University, Annamalainagar, Jan.20-22, 1995
- 6. 12th Annual Conference of ICC, Warangal, Dec. 1993.
- 7. UGC-DRS National Seminar on Trends in Dynamic and Structural Studies in Inorganic and Physical Chemistry, Madurai, Mar.1995
- 8. Workshop on Database Access and Retrieval, Madurai Kamaraj University, Madurai, Oct.18, 1995
- 9. Symposium on Modern Trends in Chemistry, Vivekananda College, Thiruvedagam, Dec.13&14, 1995
- 10. Inservice Training to PG Chemistry Teachers, VHNSN College, Virudhunagar, Dec.26-30, 1995
- 11. UGC Conference on Recent Advances in Physical Organic Chemistry, VHNSN College, Virudhunagar, Mar.29, 1996
- 12. Seminar on Marine Corrosion and its Control, CMFRI, Mandapam, June 7&8, 1996
- 13. Satellite Symposium on Current Trends in Photophysics and Photochemistry, Madurai Kamaraj University, Madurai, Aug.5&6 1996
- 14. Seminar on Electrochemical Technology, Salt Department, Tuticorin, Aug.8, 1996
- 15. Refresher Course on anodizing of aluminium and its alloys, CECRI, Karaikudi, Jan 1998.
- 16. Workshop on MS Office, CECRI, Karaikudi, Sep.1998

- 17. 6th International Symposium on Advances in Electrochemical Science and Technology, Chennai, Nov.1998
- 18. Workshop on Total Quality Management and ISO 9000, CECRI, Karaikudi, 1999
- 19. Workshop on Role of Hindi as official language, CECRI, Karaikudi, 2000
- 20. National Symposium on Electrochemical Science and Technology, Bangalore, July 2000
- 21. 10th National Convention of Electrochemists, Karaikudi, April 2001
- 22. Seminar on Electro Organic Synthesis, CECRI, Karaikudi, May 2001
- 23. Seminar on Electrochemical Instrumentation, CECRI, Karaikudi, Feb. 2002
- 24. Workshop on Recent trends in Industrial Electroplating and Metal Finishing, CIT, Coimbatore, June 2002.
- 25. Workshop on Recent trends in Industrial Metal Finishing, CECRI, Karaikudi, July 2002.
- 26. Workshop on Recent Advances in Electrometallurgy, CECRI, Karaikudi, July 2002.
- 27. Seventh International Symposium on Electrochemical Science and Technology, Chennai, Nov.2002
- 28. Training Programme on Science Direct, CECRI, Karaikudi, Dec. 2002.
- 29. Fifth Indo-German Seminar on Chemical Modification of surfaces and electrocatalysis, Karaikudi, Jan. 2003.
- 30. Workshop on Communicative Hindi, Karaikudi, September 2003.
- 31. University-Industry Linkage Seminar on Membrane Technology Salem, March 11, 2005
- 32. One day Orientation programme for College Teachers on Environmental Education, Salem, March 15, 2005.
- 33. National Seminar on Recent Advances in Nanoscience and Technology (RANSAT-2005), Salem, 29-30 September 2005.
- 34. National Conference on Recent Advances in Chemistry (RAC-2007), Periyar University, Salem, March 1-2,2007.

- 35. International Conference on Nanomaterials and their Applications (ICNA-2007), NIT, Trichy, February 2007.
- 36. National Seminar on Recent Advances in Textile and Electrochemical Sciences, Alagappa University, Karaikudi, June 2007
- 37. National Conference on Advances in Surface and Interface Analysis (ASIA-2007), Periyar University, Salem, December 13-14,2007.
- 38. National Conference on recent Advances in Metalloorganic Chemistry (RAMC-2008), Periyar University, Salem, October, 2008.
- 39. Seminar on Recent Advances in chemical Sciences (RACS-2009), Periyar University, Salem, March 2009.
- 40. International Conference on Advancement of Nanoscience and Nanotechnology, March 2010. Alagappa University, Karaikudi.
- 41. National Seminar on new Frontiers in Chemistry, Annamalai University, Mar.2010.
- 42. National conference on recent advances in electroanalytical techniques. Gandhigram Rural Institute, Gandhigram. February 2010.
- 43. National Seminar on new Frontiers in Chemistry, Annamalai University, Mar.2010
- 44. Seminar on Role of Periyar University in Social Welfare and Higher Education, Salem, July 2010.
- 45. All India Congress on Education, New Delhi, Aug.2010.
- 46. Training Programme on Climate Change and Carbon Mitigation, Dehradun, Sep.2010.
- 47. National Seminar on Emerging trends in Nanoscience, Alwarkurichi, Dec. 2010
- 48. National Seminar on Frontiers in Organic Synthesis and Medicinal Chemistry Periyar University, Salem, Feb.2011.
- 49. State level seminar on Nanoscience and Nanotechnology, GAC, Thiruvannamalai, Aug.2011.
- 50. National Conference on Nanoscience and Nanotechnology, University of Madras, Chennai, Aug.2011.

- 51. National Seminar on Physical and Biomedical Applications of Nanotechnology, NSNANO-2011, Kollam, Oct. 2011.
- 52. Workshop on Open Source Drug Discovery, CECRI, Karaikudi, Dec.2011
- 53. 12th Tamil Science Congress on , Periyar University, Aug.23-25, 2012
- 54. International Seminar on Emerging Trends in Research, TBAK College, Keelakarai, April 12.2012
- 55. National Seminar on "Recent Trends in Advanced Materials", ERK College, Dharmapuri, 5th Aug.2012
- 56. Workshop on "Applications of Radioisotopes in Chemical Sciences (ARCS-2012), Periyar University, 28th Sep.2012
- 57. National Seminar on "Recent Advances in Surface Science, Gandhigram Rural Institute, Gandhigram, 13,14 Feb.2013.
- 58. International Conference on Biological Inorganic Chemistry, Salem, 20-22 Feb.2013.
- 59. National Conference on Advanced Materials for the Emerging Technologies (CAMET-2013), Coimbatore, July 2013.
- on "Recent Advances in Materials Science" RAMS-2013, Bharathiar College of Arts and Science, Attur, 6th Sep..2013

List of Publications i) In Journals

No	Paper Title	Authors	Journal Name, Vol, Year	Page and IF
56	Formation and characterization of chitosan/ TiO ₂ and its ability to apatite formation	V.Raj, M.Mumjitha	Electrochimica Acta	Under Revision (4.1)
55	Phytochemical screening, total phenolic contents and antioxidant activity of Syzygium caryophyllatum and Syzygium densiflorum'	R.Subramanian, P.Subbramaniyan, V.Raj	Journal of Biologically Active Products from Nature"	(In Press)
54	Application of Cobalt oxide nanostructured modified aluminium electrode for electrocatalytic oxidation of Guanine and Single Strand DNA	V.Raj, J.Silambarasan, P.Rajakumar	RSC Adv.	Accepted (2.6)
53	Formation and Surface Structural Features of Crystalline Ceramic Nanocomposite Coatings on Aluminium Using Lithium Sulphate with Silicate Additive	M. Mubarak Ali, V. Raj.	Acta Metallurgica Sinica(English letters), 2014, 27 (2): 185-197	In press)0.5
52	Electrocatalytic determination of o-nitro benzaldehyde using tin nanorods modified aluminium electrode	V.Raj, J.Silambarasan, P.Rajakumar	J.Environ.Sci	In Press (1.8)
51.	Phytochemical screening, total phenolics and antioxidant activity of two tropical medicinal plants"	R.Subramanian, P.Subbramaniyan, V.Raj	African J.Trop.Biomed.	In Press
50	A Comparative study on formation and charecterization of porous alumina and ceramic nanorods obtained from different electrolytes by anodization	V.Raj, M.Mumjitha	Mater.Sci. Eng. B179, (2013)	25-35 (1.8)
49	Hyaluronidase enzyme core-5-fluorouracil loaded chitosan-	M.Rajan and V.Raj	Int. J.Pharmaceutics, 453(2013)	514 (3.5)

	PEG-gelain polymer nanocomposites as targetted and controlled drug delivery vehicles			
48	Formation and characterization of Chitosan-Polylactic acid-polyethylene glycol-gelatin nanoparticles. A novel system for controlled drug delivery	M.Rajan and V.Raj	Carbohydrate Polymers 98(2013)	951 (4.0)
47	Formation and surface characterization of nanostructured Al ₂ O ₃ -TiO ₂ coatings	Vairamuthu Raj and Mohamed Sirajudeen Mumjitha	Bull.Mater. Sci.	In press (0.6)
46	Improvement of Corrosion resistance of anodised aluminium surfaces	S.Karthikeyan, P.A.Jeeva, Deventharanath Ramkumar, N.Arivazhagan S.Narayanan	J.Corrosion.Sci.Eng. 16(2013)	In press
45	Antioxidant activities of peltophorum pterocarpum flower extract	R.Subramanian, P.Subbramaniyan, V.Raj	SpringerPlus 2(2013)28	In press
44	Formation and characterization of ceramic nano composite crystalline coatings on aluminium by Anodization	M.Mubarak Ali, V.Raj	J.Mater.Sci.Technol29 (2013)	595 (1.2)
43	Potential drug delivery applications of chitosan based nanomaterials	M.Rajan and V.Raj	Int. Rev. Chem. Eng. 5 (2013)	145 (6.4)
42	Encapsulation, characterisation and in-vitro release of anti-tuberculosis drug using chitosan – poly ethylene glycol nanoparticles	M.Rajan and V.Raj	Int J. Pharm. Pharmaceut. Sci. 4(2012)	255 (1.1)
41	Effect of plating time on growth of nanocrystalline Ni-P from sulphate/glycine bath by Electroless deposition method	N.Latha, M.Selvam, P.Manisankar and V.Raj	Bull. Mater. Sci . 36 (2013)	719 (0.6)
40	Defluoridation studies of drinking water using natural and zirconium impregnated clay mineral	M.Rajan, V.Guru Sankar, G.Alagumuthu and V.Raj	Chem.Res.Lett. 1(2012)	68-77 (NA)

39	Formation of nanoceramic coatings on aluminium for corrosion resistance applications	M.Mubarak Ali, V.Raj	Chem.Res.Lett. 1(2012)	10-17 (NA)
38	Formation of ceramic nanocomposite coatings on aluminium by anodization using magnesium sulphate with additives	M.Mubarak Ali, V.Raj	Trans InstMet. Fin.90(2012)	215 (1.79)
37	Studies on electron transfer reactions: Oxidation of phenols and ring substituted phenols by heteropoly 11-tungstophospovanadate(V) in aqueous acidic medium	M. Vairalakshmi, V. Raj, P. Sami and K. Rajasekaran	Trans. Metal. Chem 36 (2011)	875 (1.1)
36.	Determination of some minerals and trace elements in two tropical medicinal plants	R.Subramanian, P. Subramaniyan, V.Raj	Asian Pacific J. Trop. Biomed. 2 (2012)	1-4 (0.4)
35	Fabrication of Ni nanorods and study of its magnetic properties	V.Raj , P.Rajakumar, J.Silambarasan	Materials Technology: AdvMater. Perform. 27(2012)	304 (0.6)
34	Synthesis and characterization of chromate conversion coatings on aluminium	M.Sherin Bhanu, V.Raj and M.Mubarak Ali	Res. J. Chem. Environ.	In press (0.64)
33.	Ortho phosphoric acid activated ananus comosus leaves carbon as an adsorbent for the removal of basic yellow 2: Kinetics and isotherm studies	R.Parimalam, V.Raj , P.Sivakumar	Asian J. Chem.25(2013)	1331 (0.31)
32.	Double bypass Soxhlet apparatus for extraction of piperene from piper nigrum	R.Subramanian, P.Subbramaniyan, J.Noorul Ameen and V.Raj	Arabian J. Chem.	In Press (2.3)
31	Removal of acid green 25 from aqueous solution by adsorption	R.Parimalam, V.Raj , P.Sivakumar	J. Chem . 9-4 (2012)	1683-1698 (0.52)
30.	Structural and corrosion behaviour of nanocrystalline Ni-P on aluminium with heat treatment	N.Latha and V.Raj	Int. J. Chem. Appl 4-2(2012)	77-84 (NA)
29.	Synthesis and characterization of Electroless nanocrystalline Ni-P on aluminium	N.Latha, V.Raj, M.Selvam and P.Manisankar	Int. J. Chem. Sci .10-1(2012)	479-489 (NA)
28.	Analysis of mineral and heavy metal levels in medicinal	R.Subramanian, S.Gayathri and V.Raj	Asian Pacific J.Trop. Biomed.2-1 (2012)	S74-S78 (0.4)

	plants collected from local market			
27.	Chemical synthesis, characterization and properties of conducting copolymers of imidazole and pyridine	V. Raj, D Madheswari M. Mubarak Ali,	J. Appl. Polym. Sci. 124 (2012)	1649-1658 (1.4)
26.	Bath optimization and corrosion study of Ni-P on zincated aluminium from glycine bath	N.Latha and V.Raj	Asian J. Res. Chem . 4-12 (2011)	1898-1904 (NA)
25.	Determination of lead, manganese, copper, zinc, cadmium, nickel and chromium in tea leaves	B.Srividya, V.Raj and R.Subramanian	Int. J. Pharm. Pharmaceut. Sci. 3-4 (2011)	257-258 (1.1)
24.	Biochemical analysis and enzyme activities of tea leaves	B.Srividya, R.Subramanian, V.Raj	J. Indian Chem. Soc . 23-10(2011)	01 (0.4)
23.	Determination of catechins and antioxidant activities of commercial green and black teas	B.Srividya, R.Subramanian, V.Raj	Asian J. Chem . 23 (2011)	4603 (0.31)
22	Adsorption isotherms, kinetics, thermodynamics and desorption studies of reactive orange 16 on activated carbon derived from Ananus comosus (L)	R.Parimalam, V.Raj , P.Sivakumar	J. Engg. Appl. Sci. 6 (2011)	14-26 (0.4)
21	Immersion plating of tin on aluminium by micro wave irradiation in acidic medium	M.Sherin Bhanu, V.Raj and M.Mubarak Ali	Asian J. Research Chem. 4(2011)	1726 (NA)
20	Corrosion inhibition of molybdate conversion coatings	M.Sherin Bhanu, V.Raj and M.Mubarak Ali	Asian J. Research Chem. 4 (2011)	1520 (NA)
19.	Synthesis and surface characterization of aluminasilica-zirconia nanocomposite Ceramic fibers on aluminium at room temperature,	M. Mubarak Ali and V. Raj ,	Appl. Surf. Sci . 256 (2010)	3841 (2.1)
18.	Chemical synthesis and properties of poly (carbazole co-imidazole)	V. Raj, D Madheswari M. Mubarak Ali,	J.Appl.Polym. Sci. 117 (2010)_	2824-2833 (1.4)
17.	Chemical Formation, Characterization and Properties of Polycarbazole	V. Raj, D Madheswari M. Mubarak Ali	J. Appl. Polym. Sci . 116 (2009)	147 (1.4)

16.	Effect of Voltammetric parameters on formation of highly ordered nanoporous structures	V. Raj and M. Mubarak Ali	Trans.Inst.Met.Fin.87 (2009)	272. (1.79)
15.	Formation of ceramic alumina nanocomposite coatings on aluminium for enhanced corrosion resistance	V. Raj and M. Mubarak Ali	J. Mater. Process. Technol. 209 (2009)	5341 (1.95)
14.	Synthesis, characterization and corrosion behaviour of oxide films on aluminium	V. Raj and M. Mubarak Ali,	J.Metall. Mater. Sci. , 51 (2009)	61(NA)
13.	Guest-host inte ractions in the alkaline bleaching of triphenylmethane dyes catalysed by \(\mathcal{B}\)-cyclodextrin,	V.Raj, A.Sarathi, T.Chandrakala, S.Dhanalakshmi, R.Sudha and K.Rajasekaran,	J.Chem.Sci. 121(2009)	529 (1.3)
12.	Guest-host interactions in alkaline hydrolysis of phenylphenylacetates catalysed by ß-cyclodextrin,	V.Raj and K.Rajasekaran,	J.Chem.Sci.120 (2008)	324 (1.3)
11.	Nickel coated aluminium electrode-A sensor for the Voltammetric analysis of crystal violet	V. Raj and M. Mubarak Ali	J.Metall.Mater.Sci. 50 (2008)	183 (NA)
10.	Effect of α-picoline and quinoline on DC and Pulse Plating of nickel directly on aluminium	S.Mohan and V.Raj	Trans.Inst.Met.Fin. 85, 2007	162 (1.79)
9.	Corrosion behaviour of DC and pulse gold deposits formed on aluminium-An impedance study	D.Kanagaraj, S.Mohan and V.Raj	Trans.Inst.Met.Fin.83, 2005	93 (1.79)
8.	Effect of additives on pulsed electrodeposition of copper	S.Mohan and V.Raj	Trans.Inst.MetFin.83, 2005	194 (1.79)
7.	Effect of sealing agents on the corrosion behaviour of anodized aluminium	V.Raj,S.Mohan and D.Kanagaraj	Trans.Inst.MetFin.81 (2003)	83 (1.79)
6.	Pulse anodising-An overview	V.Raj,M.P.Rajaram,G. Balasubramanian and D.Kanagaraj	Trans.InstMet.Fin .81(200 3)	108 (1.79)
5.	Effect of pulse frequency on pulse anodizing of AA1100	D.Kanagaraj, V.Raj , S.Vincent and	Bull.Electrochem.,17(2001	523 (0.4)

	aluminium alloy	S.Venkatakrishna Iyer		
4.	Pulse anodizing of AA1100 aluminium alloy in oxalic acid electrolyte	D.Kanagaraj, V.Raj, S.Vincent, B.Prasannakumar, A.Senthilkumar and S.Venkatakrishna Iyer	Bull.Electrochem.,17(2001	285 (0.4)
3.	Effect of addition agents on anodizing of aluminium and its alloys in sulphamic acid using pulse technique	D.Kanagaraj, S.Vincent, V.Raj and S.Venkatakrishna Iyer	J.Electrochem.Soc.India, 48(1999	222 (NA)
2.	Evaluation of aluminium surface subjected to various surface treatments by electrochemical impedance spectroscopy	D.Kanagaraj, S.Mohan, N.G.Renganathan, V.Raj, S.Venkataramanan and S.Venkatakrishna Iyer	Bull.Electrochem.,15(1999)	164 (0.4)
1.	Kinetics of addition of n- butylamine to 4'substituted 2- styrylpyridinium iodides	A.Shunmugasundaram, T.Lekshmana Thanulingam, V.Raj and A.Rajasekar,	Indian J.Chem., 33A(1994)	417 (0.9)

In Proceedings

No	Paper Title	Authors	Journal Name, Vol, Year	Page
26	Gelatin-PEG coated modified Chitosan/ Hyaluronidase nanoparticles for Tumor- Targeted Drug delivery and controlled release	M.Rajan and V.Raj	National conference on Advanced Materials processing, Characterization, and application, PSN college of engineering and technology, Tirunelveli.	269- 274
25	Structure and magnetic properties of Cobalt naorods on Aluminium	P.Rajakumar, J. Silambarasan, and V.Raj	National conference on Advanced Materials processing, Characterization, and application, PSN college of engineering and technology, Tirunelveli	174 - 178
24	Enhanced Photocatalytic activity of TiO ₂ particles by Zinc doping	V. Raj and M. Mumjitha	National conference on Advanced Materials processing, Characterization, and application, PSN college of engineering and technology, Tirunelveli.	263- 268
23	Removal of methylene blue through AAO memebrane	V.Raj, R.Senbahavalli, P.Rajakumar and J.Silambarasan	National conference on Advanced Materials processing, Characterization, and application, PSN college of engineering and technology, Tirunelveli	258- 262
22	Emerging Trends in Research in Chemistry	V.Raj	Proc.Int.Conf.Emerging Trends in Research, TBA College, Kelakarai	1-6
21	Nanoceramic coatings on aluminium	V.Raj	Proc.SPEC-2012	3-10
20.	Nanocrystalline alumina films for enhanced corrosion resistance (Best paper-II Prize)	V.Raj, S.Maheswari, M.Mumjitha and M.Mubarak Ali	Proc. NSNANO-2011	24-36
19.	Nanoporous AAO membranes as adsorbents for the removal of methylene blue (Best paper-III Prize)	V.Raj , R.Senbahavalli, J.Silambarasan and P.Rajakumar	Proc. NSNANO-2011	37-46
18.	Electrochemical fabrication and magnetic properties of	V.Raj ,P.Rajakumar and J.Silambarasan	Proc. NSNANO-2011	47-57

	Ni nanorods			
17.	Role of hexavalent chromium in the inhibition of corrosion of aluminium alloys	M.Sherin Bhanu and V.Raj	ProcState level Seminar on Recent Trends in Chemistry, Salem, March 2011	15-18
16.	Thin film of tin deposition on aluminium by Immersion plating in acidic medium	M.Sherin Bhanu and V.Raj	Proc.State level Seminar on Recent Trends in Chemistry, Salem, March 2011	38-41
15.	Nanometals and metal oxides-An Overview	V.Raj	Proc.National Seminar on Emerging Trends in Nanoscience, Alwarkurichi, Dec.2010	11-24
14.	Role of Chemists to the society and environmetal sustainability	V.Raj	Proc. National Seminar on Role of Periyar University in Social welfare and Higher education, July 2010	
13.	Conducting polymers	V.Raj	Proc. National workshop on Current Trends in Advanced Polymer Composites, 2009	14-20
12.	Bio-Methanation of Sago Effluent	A.Rajaram, V.Raj and P.Manisankar	Proc.National Conference on Environmental Conservation Pilani, Sep.2006	295- 299
11.	Development of Alumina Nano Filters for Environmental Separartions	V.Raj and N.Latha	Proc.National Conference on Environmental Conservation Pilani, Sep.2006	33-37
10.	Corrosion Inhibitition of Aluminium in Hydrochloric acid by Commercial Detergents	V.Raj and M.C.Pravitha	Proc.Sixteenth National Congress on Corrosion Control, Mangalore, Oct.2006	
9.	Corrosion inhibition of mild steel in NaCl by Nanocrystalline zinc oxide	N.Latha and V.Raj	Proc.Sixteenth National Congress on Corrosion Control, Mangalore, Oct.2006	
8.	Structural Properties of alumina films obtained from oxalic acid electrolyte	V.Raj and D.Kanagaraj	Proc.ISAEST –VII, 2002	H-44
7.	Formation of thick aluminium oxide films from chromic acid electrolyte	M.P.Rajaram, G.Balasumbramanian V.R aj and D.Kanagaraj	Proc.ISAEST –VII, 2002	H-47
6.	Evaluation of sealing of anodized aluminium by potentiodynamic	V.Raj , S.Mohan and D.Kanagaraj	Proc.ISAEST –VII, 2002	H-41

	polarization studies			
5.	Surface characteristics of aluminium oxide films formed by pulse anodizing in oxalic acid electrolyte	D.Kanagaraj, V.Raj, S.Vincent, A.Senthilkumar and B.Prasannakumar	Proc.INSURE-2001	225
4.	Studies on anodic oxide coating of aluminium alloys in magnesium sulphate electrolyte	D.Kanagaraj, V.Raj , G.Balasubramanian and P.Rajendran	Proc.INSURE-2001	95
3.	Protective property of conductive polyaniline coating derived from its Dispersion	S.Karthikeyan,S.Shriram, S.Pitchumani,S.Mohan,D .Kanagaraj and V.Raj	Proc.Electrochem.Soc. 4(2001)	579.
2.	A comparative study of corrosion behaviour of DC and pulse anodized AA2024 alloy	S.Mohan,D.Kanagaraj,V. Raj,S.Vincent,N.G.Reng anathan and S.Raman	Proc.Electrochem.Soc. 4(2001)	1109
1.	Evaluation of corrosion resistance behaviour of different sealing agents on anodized aluminium alloys by electrochemical impedance spectroscopy	D.Kanagaraj, S.Mohan, V.Raj, N.G.Renganathan, M.Kamalkumar and S.Venkatakrishna Iyer	Proc.Electrochem.Soc.4 (2000)	305

List of Patents

- 1. A novel method of pretreatment for direct electroplating of nickel, copper and gold on aluminium and its alloys.
 - D.Kanagaraj, R. Venkatachalam, S. Mohan and V. Raj (2000)
- 2. A novel method of inorganic colouring of anodized aluminium by chemical Deposition
 - D.Kanagaraj, M.Selvam and V.Raj, (1998)

List of Books

- 1. Research Mannual for Chemists, V.Raj, Lambert Academic Publishers, Germany, **ISBN 978-3-8383-0318-5, 2010**
- 2. Surface Technology of Aluminium, V.Raj and V.Thangaraj, Lambert Academic Publishers, Germany, ISBN 978-3-8433-9181-8, 2011
- 3. Methods of Chemical Analysis, V.Raj and M.Senthil vadivu, Lambert Academic Publishers, Germany, ISBN 978-3-8465-0112-2, 2011
- 4. Conversion coatings on aluminium, V.Raj and M.Mubarak Ali, Lambert Academic Publishers, Germany, ISBN 978-3-8484-8293-1, 2012
- Surface Properties of Chromate conversion coated aluminium, V.Raj,
 M.Mubarak Ali and K.Kokila Lambert Academic Publishers, Germany, ISBN 978-3-659-10620-0, 2012

Papers presented in International Conferences/Seminars

47. Preparation of parthenium based nano activated carbon via microwave induced ZnCl₂ activation for the removal of malachite green and reactive orange 30 R.Mohan Raj, P.Arul and V.Raj International Conference on Chemistry in synergy with materials and biology, Trichy, 10-11 Jan. 2014

46. Anodic Non-porous Alumina Coatings (ANPAC) with higher corrosion resistance fabricated from mixed sulphuric acid-glycerol electrolyte R.Senbahavalli, S.Sangeetha and V.Raj International Conference on Emerging Trends in Chemical Sciences, VIT, Vellore, 5-7 Dec.2013

45. Fabrication of Fe₃O₄ nanoparticles/graphite modified aluminium electrode for simultaneous determination of guanine and adenine V.Raj, J.Silambarasan, P.Rajakumar and G.S.Ganesh International Conference on Emerging Trends in Chemical Sciences, Vellore, 5-7 Dec.2013

44. Fabrication and electrochemical properties of polypyrrole/TiO₂ nanocomposite coatings

M.Mumjitha, V.Raj

International Conference on Emerging Trends in Chemical Sciences, Vellore, 5-7 Dec.2013

43. Cisplatin-polyoxalate nanoparticles for tumor targeted drug delivery vehicle and controlled release

M.Rajan, B.Priya and V.Raj

International Conference on Biological Inorganic Chemistry, Salem, 20-22 Feb.2013 (PP-263)

42. Fabrication and electrochemical properties of polypyrrole/Ag/TiO₂ nanocomposite coatings

M.Mumjitha and V.Raj

International Conference on Biological Inorganic Chemistry, Salem, 20-22 Feb.2013 (PP-250)

41. Formation, corrosion and structural studies of NC-Ni-P deposits from sodium acetate bath.

N.Latha and V.Raj

International Conference on Biological Inorganic Chemistry, Salem, 20-22 Feb.2013 (PP-217)

40. Green synthesis of gold nanoparticles using leaf extract of Syzygium densiflorum

R.Subramanian, V.Raj, P.Subbramaniyan

International Conference on Biological Inorganic Chemistry, Salem, 20-22 Feb.2013 (PP-134)

39. Electrocatalytic oxidation of guanine and DNA on aluminium electrode modified by cobalt hexacyanoferrate films.

J.Silambarasan, P.Rajakumar and V.Raj

International Conference on Biological Inorganic Chemistry, Salem, 20-22 Feb.2013 (PP-092)

38. Development of well ordered nanoporous AAO membranes for environmental applications

R.Senbahavalli, V.Raj

International Conference on Biological Inorganic Chemistry, Salem, 20-22 Feb.2013, PP-056

37. Removal of crystal violet reactive dye using raw and activated extracted plant waste material as biosorbents

V.Raj, A.Raja, M.Rajan

International Conference on Emerging trends in Research, TBAK College, April 12, 2012.

36. Antioxidant activities of Syzygium Caryophylatom leaves extract

R.Subramanian and V.Raj

International symposium on Functional foods and health (ISFAH-2011), Periyar University, Salem, Nov.2011 (**Best paper award**)

35. Inhibition of oxidation of polyphenoloxidase (browning of apple),

V.Raj and P.Sobhana

International seminar on life science, Erode, Aug.2011, p-15

34. Synthesis and surface characterization of nanoceramic coatings on aluminium M.Mubarak Ali and **V.Raj**

64th Annual Technical Meeting of the Indian Institute of Metals, IISc, Bangalore, 15-16 November, 2010

33. Effect of process parameters, surface characterization and electrochemical behaviour of chromate conversion coatings on aluminium

M.Sherin Banu, M.Mubarak Ali and V.Raj

64th Annual Technical Meeting of the Indian Institute of Metals, IISc, Bangalore, 15-16 November, 2010

32. Synthesis and surface characteristics of Nanocrystalline Ni-P Coatings.

N. Latha, V. Raj, M. Selvam, P. Manishankar.

International Conference on Advancement of Nanoscience and Nanotechnology, March 2010. Alagappa University, Karaikudi

31. Electrochemical Synthesis, Characterzation and Properties of Aluminium Nanostructures.

V. Raj and R. Vimala

International Conference on Advancement of Nanoscience and Nanotechnology, March 2010. Alagappa University, Karaikudi

Synthesis and characterization of nanocrystalline conducting copolymer
 V. Raj, D.Madheswari and M.Mubarak Ali
 International Conference on Advancement of Nanoscience and Nanotechnology,
 March 2010. Alagappa University, Karaikudi

29. Corrosion resistance of ceramic nanocomposite coatings by anodic oxidation on aluminium,

M.Mubarak Ali and V. Raj

International Conference on Advancement of Nanoscience and Nanotechnology, March 2010. Alagappa University, Karaikudi

28. Biochemical analysis and antioxidant activities of green tea of South India origin

B.Srividya, R.Subramanian, P.Ponmurugan and V.Raj

International Conference on Biotechnology, Food and Bio Engineering- Emerging trends and future prospects, Thanjavur, Feb.2010

27. Synthesis and surface properties of ceramic alumina nanocomposite coatings by high temperature electrolytic oxidation-A cost effective approach

M.Mubarak Ali and V.Raj

International workshop on Self propagating high Temperature synthesis, Bangalore, November 2008

26. Investigation of surface morphology and composition of ultra thick and hard ceramic nanocomposite coatings on aluminium,

V.Raj and M.Mubarak Ali

International conference on Smart and Active Materials (ICASM-2009) Madurai, January 2009

25. Fabrication of alumina nanostructures by anodization of aluminium in sulphuric acid

V.Raj and M.Mubarak Ali

International conference on Smart and Active Materials (ICASM-2009) Madurai, January 2009

24. Mitigation of Corrosion of aluminium by chromate conversion coatings

V.Raj, M.Sherin Banu and M.Mubarak Ali

International conference on Smart and Active Materials(ICASM-2009) Madurai, January 2009.

23. Immersion deposition of trivalent chromium for corrosion protection of aluminium-A smart alternative to hexavalent chromate coating

V.Raj, M.Sherin Banu and M.Mubarak Ali

International conference on Smart and Active Materials(ICASM-2009) Madurai, January 2009.

22. Corrosion resistance of ultra hard ceramic nanocomposite coatings by anodic oxidation on aluminium

V.Raj and M.Mubarak Ali

International Conference on multifunctional oxide materials (ICMOM-2009), Shimla, April 2009.

21. Determination of elements in milk samples by cyclic voltammetry using modified aluminium electrode

M.Mubarak Ali and V.Raj

NIT, Trichy, February 2007.

International conference on Materials Science Research and Nanotechnology, Kodaikanal, February, 2008

20. Effect of surfactants on Electroless deposition of nickel on aluminium N.Latha and **V.Raj**

International Conference on Nanoscience and Technology, Madras, July 2007

 Synthesis and characterization of nanocrystalline nickel by electroless deposition N.Latha and V.Raj
 International Conference on Nanomaterials and their Applications (ICNA-2007),

18. Synthesis and characterization of nanocrystalline nickel by immersion deposition **V.Raj** and S.Ramachandran

International Conference on Nanomaterials and their Applications (ICNA-2007), NIT, Trichy, February 2007.

17. Synthesis and characteristics of nanocrystalline Nickel by Pulse Electrodeposition **V.Raj**

International Conference on Nanoscience and Nanotechnology, **Chennai**, August 2006.

16. Synthesis of Nanocrystalline Nickel by Electroless Deposition

V.Raj and N.Latha

International Conference on Nanoscience and Nanotechnology, Chennai, August 2006.

15. Corrosion behaviour of DC and Pulse gold electrodeposits on aluminium alloys

S.Mohan and V.Raj

International Conference on Surface Finishing, ISRO, Bangalore, August 2004.

14. Effect of α-picoline and quinoline on DC and pulse plating of nickel directly on aluminium

V.Raj and S.Mohan

International Conference on Surface Finishing, ISRO, Bangalore, August 2004.

13. Studies on electropolishing of stainless steel

S.Mohan, V.Raj and M.Balaguru

International Conference on Surface Finishing, ISRO, Bangalore, August 2004.

12. Corrosion behaviour of poly *ortho*- toluidine(POT) coated anodized aluminium **V.Raj** and S.Mohan

International Conference on Surface Finishing, ISRO, Bangalore, August 2004.

11. In-situ formation of composite polyaniline-alumina films on aluminium **V.Raj**, D.Kanagaraj and S.Mohan

ICMAT Symposium, Singapore, July 2003.

- 10. In-situ formation of poly N-methyl pyrrole on modified aluminium surface K.Rachel Shanthini, C.Sivakumar, D.Kanagaraj, S.Mohan, **V.Raj** and T.Vasudevan Fifth Indo-German Seminar on Chemical Modification of surfaces and electrocatalysis, Karaikudi, Jan.2003.
- 9. In-situ formation of coloured alumina films on aluminium

V.Raj and D.Kanagaraj

International Conference and Exhibition on Electroplating and Metal Finishing (Asia Interfinish 2002), New Delhi, Nov.2002

8. Direct plating of gold on aluminium using direct and pulse current:Corrosion studies S.Mohan, **V.Raj** and D.Kanagaraj International Conference and Exhibition on Electroplating and Metal Finishing (Asia

Interfinish 2002), New Delhi, Nov.2002

7. Effect of addition agents on direct nickel electrodeposition on aluminium alloy: A comparative study of DC and pulse plating

V.Raj, D.Kanagaraj and S.Mohan

International Conference and Exhibition on Electroplating and Metal Finishing (Asia Interfinish 2002), New Delhi, Nov.2002

6. Studies on chemical polishing of aluminium in phosphoric acid with and without addition agents

A.Nirmal Kumar, J.F.John, V.Raj, S.Mohan and D.Kanagaraj

International Conference and Exhibition on Electroplating and Metal Finishing (Asia Interfinish 2002), New Delhi, Nov.2002

5. Pulse electropolishing of aluminium alloys

V.Raj, S.Mohan and D.Kanagaraj

International Conference and Exhibition on Electroplating and Metal Finishing (Asia Interfinish 2002), New Delhi, Nov.2002

- 4. Influence of polyaniline blende on protection of anodized aluminium surface S.Karthikeyan, S.Shriram, S.Pitchumani, S.Mohan, D.Kanagaraj and **V.Raj** 201st Electrochemical Society Meeting, Philadelphia, May 2002.
- 3. Growth kinetics of anodic aluminium oxide films formed in sulphamic acid D.Kanagaraj, V.Raj, M.P.Rajaram and G.Balasubramanian 200th Electrochemical Society Meeting, Sanfrancisco, Sep.2001
- Colouring of anodized aluminium and its alloys by electroless technique V.Raj,M.Selvam and D.Kanagaraj 6th International Symposium on Advances in Electrochemical Science and Technology, Chennai, Nov.1998
- 1. Evaluation of anodized aluminium surface obtained from sulphamic acid using electrochemical impedance spectroscopy
 D.Kanagaraj, S.Mohan, N.G.Renganathan, V.Raj, S.Venkataramanan and S.Venkatakrishna Iyer
 - 6th International Symposium on Advances in Electrochemical Science and Technology, Chennai, Nov.1998

Papers presented in National Conferences/Seminars

79. Electrochemical Preparation of cobalt oxide nanoflowers on aluminium electrode for guanine sensing

V.Raj, J.Silambarasan, P.Rajakumar, G.S.Ganesh National Conference on Advanced Materials for the Emerging Technologies (CAMET-2013), Coimbatore, July 2013.

- 78. P.Rajakumar, J.Silambarasan, and **V.Raj**National Conference on Recent Advances in Surface Science, Ghandigram,
 Dhindugal, Feb 14-15, 2013
- 77. Fabrication and characterization of electrochemically deposited tin nanorods on Alumina template and its application for the determination of ortho nitro benzaldehyde

V.Raj, J.Silambarasan and P.Rajakumar National Conference on Recent Advances in Surface Science, Ghandigram, Dhindugal, Feb 14- 15, 2013

76. Effect of plating time on growth of nanocrystalline Ni-P formed by Electroless deposition

N.Latha and V.Raj

12th Tamil Science Congress, Perivar University, 23-25 Aug.2012. Chem-48

75. Antioxidant activities of Shorea roxpurgii

R.Subramanian, P.Subbiramaniyan and V.Raj

12th Tamil Science Congress, Periyar University, 23-25 Aug.2012. Chem-30

74. Electrochemical formation and characterization of ordered nickel nanostructures **V.Raj**, P.Rajakumar and J.Silambarasan

12th Tamil Science Congress, Periyar University, 23-25 Aug.2012. Chem-29

73. Determination of o-nitrophenol using modified aluminium electrode by cyclic voltammetry

V.Raj, J.Silambarasan and P.Rajakumar

12th Tamil Science Congress, Periyar University, 23-25 Aug.2012. Chem-28

72. Development of anti tuberculosis drug using chitosan-polyethylene glycol polymer by invitro analysis

M.Rajan and V.Raj

12th Tamil Science Congress, Periyar University, 23-25 Aug.2012. Chem-23

71. Formation of TiO₂ nanoparticles by rapid anodization

M.Mumjitha and V.Raj

12th Tamil Science Congress, Periyar University, 23-25 Aug.2012. Chem-22

70. Removal of methylene blue using alumina nanotubes as adsorbents R.Shenbahavalli, P.Rajakumar, J.Silambarasan and **V.Raj** 12th Tamil Science Congress, Periyar University, 23-25 Aug.2012. Chem-21

69. Role of rapid anodization in synthesis of titanium oxide nanoparticles M.Mumjitha and **V.Raj**

12th Tamil Science Congress, Periyar University, 23-25 Aug.2012. Chem-10

68. Electrochemical synthesis of nanostructured alumina/ZnO and its applications as biosensor for the voltammetric determination of polyphenols

V.Raj, J.Silambarasan, T.Palvannan, and K.Balan

National Seminar on Enzymes and Biocatalysis. The versatile reactors: Current and future perspectives (NSEB 2012), Periyar University, Salem, Jan.2012

67. An innovative approach of fluoride removal using zirconium (IV) impregnated bioadsorbent

M.Rajan, V.Raj and G.Alagumuthu

National Seminar on Enzymes and Biocatalysis. The versatile reactors: Current and future perspectives (NSEB 2012), Periyar University, Salem, Jan.2012

66. Electrochemical fabrication and magnetic properties of Ni nanorods V.Raj, P.Rajakumar and J.Silambarasan National Seminar on Physical and Biomedical Applications of Nanotechnology, NSNANO-2011, Kollam, Oct. 2011.

65. Formation and characterization of alumina-titania nanocomposite coatings by electrolytic oxidation of aluminium,

V.Raj, M.Mumjitha and M.Mubarak Ali

National Conference on Nanoscience and Nanotechnology, Chennai, Aug.2011 PP-52

64. Electrochemical formation and characterization of tin nanobricks using AAO on aluminium,

V.Raj, P.Rajakumar and J.Silambarasan

National Conference on Nanoscience and nanotechnology, Chennai, Aug.2011 PP-53

63. Formation and characterization of nanocrystalline alumina films from LiSO₄ electrolyte

V.Raj and R.Vimala

Second National Conference on Multifunctional nanomaterials and Nanocomposites, Coimbatore, March 2011, OP-11

- 62. Ananas comosus (L) activated carbon as biosorbent for the effective removal of basic dye from aqueous solution: Kinetics and Equilibrium studies R.Parimalam, **V.Raj** and P.Sivakumar National seminar on Nanomaterials and applications, Coimbatore, May 2011
- 61. Electrochemical formation and characterization of ordered arrays of Ni nanostructures

V.Raj, P.Rajakumar and J.Silambarasan

Second National Conference on Multifunctional nanomaterials and Nanocomposites, Coimbatore, March 2011, P-4

60. A simple and novel route to synthesize SnO₂ nanorods P.Sumathi and **V.Raj**

Second National Conference on Multifunctional nanomaterials and Nanocomposites, Coimbatore, March 2011, P-23

59 Electrochemical synthesis and characterization of nanocomposite coatings **V.Raj**, M.Mumjitha and J.Vasuki Second National Conference on Multifunctional nanomaterials and Nanocomposites, Coimbatore, March 2011, OP-11

58. Development of ordered nanoporous alumina membranes for medical applications.

V.Raj, P.Rajakumar, J.Silambarasan and M.Mubarak Ali

National Seminar on Frontiers in Organic Synthesis and Medicinal Chemistry Salem, Feb.2011

57. Antioxidant properties and polyphenol content of Peltophorum Pterocarpum flower extracts

P.Subbramaniyan, R.Subramanian, J.Noorul Ameen and **V.Raj** National Seminar on Frontiers in Organic Synthesis and Medicinal Chemistry Salem, Feb.2011

56. Phenolic content and enzyme acxtivities of Tea leaves

B.Srividhya, R.Subramanian and V.Raj

National Seminar on Frontiers in Organic Synthesis and Medicinal Chemistry Salem, Feb.2011

55. Nanometals and metal oxides – An Overview

V.Raj

National Seminar on Emerging trends in Nanoscience, Alwarkurichi, Dec.2010

54. Synthesis and surface characteristics of nanocrystalline Ni-P on aluminium by electroless deposition,

N.Latha and V.Raj,

National Seminar on new Frontiers in Chemistry, Annamalai University, Mar. 2010

53. Nanocrystalline Stannous Oxide as Inhibitor for Corrosion of Aluminium in Hydrochloric Acid.

V. Raj and P.Sumathi

National conference on recent advances in electroanalytical techniques. Gandhigram Rural Institute, Gandhigram. February 2010.

52. Corrosion inhibition of aluminium in nitric acid by extract of *azadrachta indica* **V.Raj** and M.Senthil vadivu

National conference on recent advances in electroanalytical techniques. Gandhigraham Rural Institute, Gandhigram. February 2010

51. Electroless deposition of nanocrystalline Ni-P on aluminium

N.Latha, V.Raj, M.Selvam, P.Manisankar

Ninth Tamil Science Congress, Alagappa University, Karaikudi, Dec. 2009.

50. Fabrication of alumina nanostructures by anodization of aluminium in sulphuric acid **V.Raj** and M.Mubarak Ali

National Conference on Recent Advances in Metalloorganic Chemistry (RAMC-2007), Salem, October 2008.

49. Mitigation of corrosion of aluminium by chromate conversion coatings **V.Raj** and M.Mubarak Ali

National Conference on Recent Advances in Metalloorganic Chemistry (RAMC-2007), Salem, October 2008.

48. Surface structural morphological features of electroless deposited Ni-P on aluminium

N.Latha and V.Raj

National Conference on Advances in Surface and Interface Analysis (ASIA-2007), Salem, December 2007.

47. Bright surface finishing of aluminium by chemical polishing

V.Raj and A.Kesavan

National Conference on Advances in Surface and Interface Analysis (ASIA-2007), Salem, December 2007.

46. Determination of malachite green dye by cyclic voltammetry

M.Mubarak Ali, V.Raj and R.Murugan

National Conference on Advances in Surface and Interface Analysis (ASIA-2007), Salem, December 2007.

45. Determination of crystal violet dye by cyclic voltammetry

M.Mubarak Ali, V.Raj and G.Praba

National Conference on Advances in Surface and Interface Analysis (ASIA-2007), Salem, December 2007.

44. Electrochemical treatment of reactive black 5 using stainless steel anode

V.Sreeja, P.Manisankar and V.Raj

National Conference on Advances in Surface and Interface Analysis (ASIA-2007), Salem, December 2007.

43. Nickel coated aluminium electrode-A novel sensor for the determination of dyes M.Mubarak Ali and **V.Raj**

National Conference on Advances in Surface and Interface Analysis (ASIA-2007), Salem, December 2007.

42. Electrodeposition of zinc from low temperature ionic liquids

C.Kala, M.Selvam and V.Raj

National Conference on Advances in Surface and Interface Analysis (ASIA-2007), Salem, December 2007.

41. Studies on direct Electroless silver deposition on ABS plastic for electrocardiograph applications

A.Marimuthu, M.Selvam and V.Raj

National Conference on Advances in Surface and Interface Analysis (ASIA-2007), Salem, December 2007.

40. Vat dye as inhibitor for corrosion of aluminium in 1N sulphuric acid at various temperatures

M.Sherin banu, M.Mubarak Ali and V.Raj

National Conference on Advances in Surface and Interface Analysis (ASIA-2007), Salem, December 2007.

39. Corrosion inhibition of aluminium by imidazole and polyimidazole in HCl P.Shobana, S.Megala and **V.Raj**

National Conference on Advances in Surface and Interface Analysis (ASIA-2007), Salem, December 2007.

38. Studies on immersion deposition of copper from chloride bath

V.Raj and S.Ramachandran

National Conference on Advances in Surface and Interface Analysis (ASIA-2007), Salem, December 2007.

37. Poly (imidazole-co-8-hydroxy quinoline) as inhibitor for corrosion inhibition of aluminium in 5% HCl

S.Saranya, D.Madheswari and V.Raj

National Conference on Advances in Surface and Interface Analysis (ASIA-2007), Salem, December 2007.

36. Role of glycine on the formation and properties of nickel deposits on aluminium by 41lectroless plating

N.Latha and V.Raj

Fourteenth National Convention of Electrochemists, Kalpakkam, December 2007.

35. Synthesis and Surface properties of electroless nickel

N.Latha and V.Raj

National Conference on Recent Advances in Textile and Electrochemical Sciences (RATES -2007), Karaikudi, June 2007

34. Vat dyes as inhibitors for corrosion of aluminium in HCl medium

M.Sherin banu and V.Raj

National Conference on Recent Advances in Textile and Electrochemical Sciences (RATES -2007), Karaikudi, June 2007.

33. Plant extract as inhibitor for mild steel corrosion 3% NaCl

M. Gnanasoundari, N.S.Nagarajan and V.Raj

National Conference on Recent Advances in Textile and Electrochemical Sciences (RATES -2007), Karaikudi, June 2007

32. Extracts of Nerium Oleander L as Corrosion Inhibitor for Aluminium in Basic medium

V.Raj and M.Sherin Banu

National Conference on Recent Advances in Chemistry (RAC-2007), Salem, March 2007.

31. Surface characteristics and corrosion behaviour of nickel formed by electroless deposition (RAC-2007)

V.Raj, N.Latha and P.Manisankar

National Conference on Recent Advances in Chemistry (RAC-2007), Salem, March 2007.

30. Corrosion inhibition of aluminium by turmeric powder in nitric acid

V.Raj, M.Senthil Vadivu and S.Megala

National Conference on Recent Advances in Chemistry (RAC-2007), Salem, March 2007.

29. Chemical synthesis and properties of conducting polycarbazole

V.Rai and D.Madheswari

National Conference on Recent Advances in Chemistry (RAC-2007), Salem, March 2007.

28. Synthesis of Nanocrystalline Nickel by Chemical Deposition

V.Raj, N.Latha and S.Ramachandran

National Seminar on Nanochemistry, Thirupathur, August 2006.

27. Synthesis of nanocrystalline SnO₂ metal oxides for biotechnology applications N.Latha and V.Raj

National Seminar on Human perspectives of biotechnology, Salem, 11-12 February, 2006.

26. Synthesis and structural properties of nanocrystalline SnO₂ powder

N.Latha and **V.Raj**

National Seminar on Recent Advances in Materials Science, NSMS-2006, Salem, 16-17 February, 2006.

25. Fabrication of nanoporous alumina templates for the synthesis of nanomaterials **V.Raj**, and S.Mohan and S.Saranya

National Seminar on Applied Research on Solid State Chemistry And Nanotechnology (NSASN – 2005), Annamalainagar, February 25 & 26, 2005

24. Electrochemical Synthesis of nanocrystalline Ni-Co alloy deposits

V.Raj, S.Mohan and P.PadmaPriya

National Seminar on Applied Research On Solid State Chemistry And Nanotechnology (NSASN – 2005), Annamalainagar, February 25 & 26, 2005

23. Fabrication of coloured titanium oxide nanofilms

V.Raj and S.Mohan,

National Seminar on Recent Advances in Nanoscience and Technology (RANSAT-2005), Salem, 29-30 September 2005 (OP-17).

22. Synthesis and structural properties of polyaniline-alumina nanocomposite coatings S.Saranya **V.Raj** and S.Mohan,

National Seminar on Recent Advances in Nanoscience and Technology (RANSAT-2005), Salem, 29-30 September 2005 (OP-28).

21. Electrochemical formation of copper nanowires on aluminium

V.Raj and S.Mohan,

National Seminar on Recent Advances in Nanoscience and Technology (RANSAT-2005), Salem, 29-30 September 2005. (OP-28)

20. Corrosion behaviour of DC and pulse gold deposits formed by direct gold plating on aluminium-An impedance study

D.Kanagaraj, S.Mohan and V.Raj

10th National Convention of Electrochemists, Karaikudi, April 2001.

- Effect of sealing agents on corrosion behaviour of aluminium oxide films
 D.Kanagaraj, S.Mohan, V.Raj, N.G.Renganathan, S.Raman and B.Ganes Kesari, 10th
 National Convention of Electrochemists, Karaikudi, April 2001
- 18. Kinetics of growth of anodic aluminium oxide films in sulphamic acid electrolyte D.Kanagaraj, V.Raj, M.P.Rajaram and G.Balasubramanian 10th National Convention of Electrochemists, Karaikudi, April 2001
- Anodising of aluminium using potentiostatic pulses
 S.Vincent, D.Kanagaraj, V.Raj and S.Venkatakrishna Iyer
 10th National Convention of Electrochemists, Karaikudi, April 2001
- 16. A comparative study of corrosion behaviour of DC and pulse gold electrodeposits on aluminium

D.Kanagaraj,R.Venkatachalam, S.Mohan,**V.Raj** and M.Kamalkumar 10th National seminar on Corrosion Control, Madurai, Sep.2000

15. Corrosion study of pulse anodized aluminium alloy sealed with various sealing solutions

D.Kanagaraj, S.Mohan, **V.Raj**, N.G.Renganathan, M.Kamalkumar and S.Venkatakrishna Iyer

10th National seminar on Corrosion Control, Madurai, Sep.2000

14. Effect of pulse frequency on pulse anodizing of AA1100 aluminium alloy D.Kanagaraj, V.Raj, S.Vincent and S.Venkatakrishna Iyer

National Symposium on Electrochemical Science and Technology, Bangalore, July 2000

13. Growth kinetics of porous oxide film formed by anodic oxidation of aluminium and its alloys in oxalic acid

D.Kanagaraj, **V.Raj**, B.Prasannakumar and A.Senthilkumar Seminar on Recent Advances in Reaction Mechanism, Virudhunagar, Mar.2000

12. Pulse anodizing of AA1100 aluminium alloy in oxalic acid electrolyte D.Kanagaraj, V.Raj, S.Vincent, B.Prasannakumar, A.Senthilkumar and S.Venkatakrishna Iyer,

Intercollegeate Seminar on Chemical Engineering, Annamalainagar, Mar. 2000

11. Comparative study of corrosion behaviour of DC and pulse anodized and sealed aluminium alloy using electrochemical impedance spectroscopy

D.Kanagaraj, S.Mohan, V.Raj, N.G.Renganathan, J.Srisudersan and S.Venkatakrishna Iyer

9th National Seminar on Corrosion and its Control, Goa, Sep.1999

10. Impedance study of sealing of anodized aluminium alloys

D.Kanagaraj, S.Mohan, **V.Raj**, N.G.Renganathan, J.Srisudersan and S.Venkatakrishna Iyer

9th National Seminar on Corrosion and its Control, Goa, Sep. 1999

9. Effect of substituents on cyclic voltammetric cathodic peak potentials of parasubstituted β -methyl β -nitrostyrenes

A.Shunmugasundaram, T.Lekshmana Thanulingam, R.Murugesan, **V.Raj** and P.Manisankar

Conference on Recent Advances in Physical Organic Chemistry, Virudhunagar, Mar.1996

8. Kinetics of oxidation of meta- and para- substituted phenols by heteropolytungstovanado(V) phosphate

V.Raj,P.Sami,K.Rajasekaran and A.Shunmugasundaram

14th Annual Conference of ICC, Bombay, Dec.1995

7. Charge transfer interaction of 4,substituted 2-styrylquinolines: Correlation of ¹H NMR chemical shifts

A.Shunmugasundaram, V.Raj, K.Kamaraj and K.Rajasekaran

14th Annual Conference of ICC, Bombay, Dec.1995

6. Catalysis of the alkaline fading of malachite green by β -cyclodextrin

V.Raj,K.Rajasekaran and A.Shunmugasundaram

UGC-DRS National Seminar on Trends in Dynamic and Structural Studies, Madurai, Mar.1995

Effect of β-cyclodextrin on alkaline fading of rosaniline
 V.Raj, A.Shunmugasundaram and K.Rajasekaran
 31st Annual Convention of Chemists, Varanasi, Dec.1994

Effect of β-cyclodextrin on alkaline hydrolysis of phenylphenylacetates
 V.Raj and K.Rajasekaran
 13th Annual Conference of ICC, Jammu, Oct.1994

3. Charge transfer interaction of dibenzoylacetylene with various 3- and 4-substituted pyridines

V.Raj,T.Lekshmana Thanulingam,K.Rajasekeran and .Shunmugasundaram 13th Annual Conference of ICC, Jammu, Oct.1994.

2. Charge transfer interaction of dimethylacetylene dicarboxylate with various substituted pyridines

A.Shunmugasundaram, S.Vinayagamoorthy, **V.Raj** and T.Lekshmana Thanulingam 12th Annual Conference of ICC, Warangal, Dec. 1993.

 Effect of β-cyclodextrin on hydrolysis of benzenesulphonyl chlorides K.Rajasekaran, V.Raj and A.Shunmugasundaram 11th Annual Conference of Indian Council of Chemists, Muzaffarpur, Mar.1993.

List of PDFs working -1 Dr.M.Rajan, Dr.Kothari UGC Post Doctoral Fellow

List of Ph.D. Scholars guiding/guided

S. No	Name of the scholar	Title of the thesis	Name of the	Year of
			University	submission/
				registration
1	N.Latha	Synthesis and characterization of	Periyar	Awarded
		nanocrystalline nickel on aluminium by		Feb 2012
		Electroless Deposition		
2	D. Madheswari	Synthesis and characterization of	Periyar	Awarded
		polymers		Sep 2012
3	M. Sherin banu	Studies on corrosion behvaiour of various	Periyar	Awarded
		surface treated aluminium		03.08.2012
4	M. Mubarak Ali	Synthesis and characterization of ceramic	Periyar	Awarded
		nanocomposite coatings on aluminium		Oct.2011
5	P. Subbramaniyan	Biosynthesis of silver nanoparticles from	Periyar	Awarded
		plant extracts		May.2013
6	R. Subramanian	Phytochemistry, biological studies and	Periyar	Awarded
		biosynthesis of metal nanoparticles		May 2013
7	R.Parimalam	Removal of metals from industrial waste	Periyar	Viva
		water		May 2013
8	B.Srividhya	Pharmacological studies of green and	Periyar	Viva
		black teas of Indian Origin		May 2013

9.	J.Silambarasan (SRF-	Development of Nanobiosensors using	Periyar	2009
	CSIR))	modified aluminium electrodes		doing
10	P.Rajakumar(SRF-	Fabrication and characterization of Metal	Periyar	2010
	CSIR Project)	Nanostructures		doing
11	M.Mumjitha (SRF-	Synthesis and characterization of metal	Periyar	2011doing
	INSPIRE)	oxide nanostructures		
12.	R.Senbahavalli (SRF-	Nanomaterials	Periyar	2011 doing
	RGNF)			
13.	G.S. Ganesh	Synthesis and properties of nanoparticles	Periyar	2013 doing
14.	R.Mohanraj	Removal of fluoride ions using activated	Periyar	2013, doing
		carbon		
15	G.Prabha	Synthesis, characterization and	Periyar	2013, doing
		applications of nanoparticles		
16	A.Raja	Synthesis and characterization of	Periyar	2013, doing
		nanomaterials		

List of M.Phil. Scholars guided/guiding

S. No	Name of the scholar	Title of the thesis	Name of the	Month/Year
			University	
1	Manikandan	Studies on brush anodizing of	MKU	Sep.2004
		aluminium in sulphamic acid		
2	M.C.Pravitha	Corrosion inhibition of aluminium	Periyar	Sep.2006
		by commercial detergents		
3	N. Kavitha		Periyar	2006
4	G. Vijayalakshmi		Periyar	2006
5	R. Rajasekar		Periyar	2006
6.	Daisy Rani		Periyar	2010
7	R. Vijaya	Study on physiochemical	Periyar	2007
		characteristics of soil including		
		macro and micro nutrients		
8	A. Marimuthu	Studies on direct electroless silver	Alagappa	Dec. 2007
		deposition on ABS plastic for		
		electrocardiograph applications		
9	C. Kala	Studies on zinc plating from low	Alagappa	Dec. 2007
		temperature molten salt		
10	S. Ramachandran	Studies on immersion deposition of	Periyar	Dec. 2007
		copper on aluminium from cubric		
		chloride bath		
11	V. Sreeja	Electrochemical destruction of	Periyar	Sep.2007

		reactive dyes using stainless steel		
		anode		
12	T. Thiruselvam	Studies on electrodepositon of	Periyar	Dec.2009
		metals along with composite		
		particles and their characterization		
13	M. Revathi	Characterization of electronic	Periyar	Sep.2007
		industry wastes and recovery of		
		valuables by electrochemical		
		processes		
14	G. Prabha	Studies on electrochemical	Periyar	Dec.2007
		behaviour of crystal violet		
15	R. Murugan	Studies on electrochemical	Periyar	Dec.2007
		behaviour of malachite green		
16	S. Saranya	Poly(imidazole-10-8-hydroxy	Periyar	Aug.2007
		quinoline) as inhibitor for corrosion		
		inhibition of aluminium in 5%		
		hydrochloric acid		
17	K. Sivagami	Corrosion inhibition of aluminium	Periyar	Oct.2007
		by rare earth chlorides		
18	S. Savitha	Studies on the corrosion behavior of	Periyar	Nov.2007
		Ti, Ta and Ti-Ta alloys in sulphuric		
		acid		
19	K.Kokila	Synthesis and characterization of	Periyar	Sep.2007

	chromate conversion coatings on		
	aluminium		
R. Ramaraj	Application of solid fertilizers from	VMU	2008
	salt pans to magnesium demanding		
	crops like green chillies		
K. Vijayarani	Electrochemical oxidation of	Periyar	2008
	aromatic primary alcohols using N-		
	oxy hydroxide anode		
Vanitha bharathi	Studies on corrosion inhibiton of	MKU	Dec.2008
	aluminium in sulphamic acid		
Manimangai	Effect of surfactants on immersion	MKU	Dec2008
	deposition of copper		
S. Megala	Determination of chromium in milk	Periyar	Sep.2008
	by differential pulse anodic stripping		
	voltammetry using modified		
	aluminium electrode		
R. Nalini	Synthesis and antimicrobial	Periyar	Sep.2008
	investigation of some quinolines		
P. Shobana	Studies on kinetics of inhibiton of	Periyar	Sep.2008
	polyphenol oxidase in apple		
R. Revathi	Synthesis, characterization and	Periyar	Sep.2009
	properties of strontium nanocrystals		
P. Sumathi	Synthesis, characterization and	Periyar	Sep.2009
	K. Vijayarani Vanitha bharathi Manimangai S. Megala R. Nalini P. Shobana R. Revathi	aluminium R. Ramaraj Application of solid fertilizers from salt pans to magnesium demanding crops like green chillies K. Vijayarani Electrochemical oxidation of aromatic primary alcohols using Noxy hydroxide anode Vanitha bharathi Studies on corrosion inhibiton of aluminium in sulphamic acid Manimangai Effect of surfactants on immersion deposition of copper S. Megala Determination of chromium in milk by differential pulse anodic stripping voltammetry using modified aluminium electrode R. Nalini Synthesis and antimicrobial investigation of some quinolines P. Shobana Studies on kinetics of inhibiton of polyphenol oxidase in apple R. Revathi Synthesis, characterization and properties of strontium nanocrystals	aluminium R. Ramaraj Application of solid fertilizers from salt pans to magnesium demanding crops like green chillies K. Vijayarani Electrochemical oxidation of aromatic primary alcohols using Noxy hydroxide anode Vanitha bharathi Studies on corrosion inhibiton of aluminium in sulphamic acid Manimangai Effect of surfactants on immersion deposition of copper S. Megala Determination of chromium in milk by differential pulse anodic stripping voltammetry using modified aluminium electrode R. Nalini Synthesis and antimicrobial investigation of some quinolines P. Shobana Studies on kinetics of inhibiton of periyar polyphenol oxidase in apple R. Revathi Synthesis, characterization and properties of strontium nanocrystals

		properties of SnO2 nanorods		
29	R. Vimala	Electrochemical synthesis,	Periyar	Sep. 2009
		characterization and properties of		
		alumina nanostructures		
30	S. Ma heswari	Electrochemical synthesis and	Periyar	Sep2009
		characteristics of nanocrystalline		
		alumina films		
31	P. Bhuvaneswari	Preparation and characterization of	PRIST	June 2009
		sulfamate, sulfonate salts and their		
		metal complexes using hydrazine		
32	C. Menaga	Nitration of phenatol under solvent	PRIST	2009
		free conditions using cubric nitrate		
		loaded silica gel		
33	M. Mumjitha	Synthesis, surface characterization	Periyar	Sep.2010
		and corrosion behavior of anodic		
		coatings on aluminium		
34	J.Noorul ameen	Investigation of anti-oxidant	Periyar	Sep.2010
		activities of peltophorum		
		pteocarpum flowers		
35	A. Kesavan	Studies on chemical polishing of	PRIST	Dec. 2010
		aluminium in citrate bath		
36	R.Senbahavalli	Removal of methylene blue using	Periyar	2011
		nanoporous alumina coatings		

37	R.Divya	Formation of nanoporous alumina	Periyar	2011
		coatings by anodization of		
		aluminium from sulphuricacid –		
		tartaric acid baths		
38	H.Serina Bhanu	Antioxidant and antibacterial	Periyar	2012
		activities of leaf extracts of		
		Andrographis paniculata nees		
39	A. Raja	Removal of crystal violet dye from	Periyar	2012
		polluted water using natural and		
		synthetic sorbents		
40	Sathya Priya	Anodic Oxidation of Aluminium	Periyar	2013
41	Prabakaran	Removal of dyes using biosorbents	Periyar	2013
42	Priya	Chitosan nanoparticles crosslinked	Periyar	
		with natural polymers as controlled		doing
		drug carriers		
43	Selvaraj	Determination of amino acids using	Periyar	
		modified electrode as biosensors		doing