NEHRU MEMORIAL COLLEGE (AUTONOMOUS)

PUTHANAMPATTI-621007

STAFF PROFILE

NAME OF THE STAFF : Dr.A.SEKAR

DESIGNATION : ASSOCIATE PROFESSOR AND HEAD

DEPARTMENT : CHEMISTRY



1. CONTACT

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2. ACADEMIC QUALIFICATIONS

Degree	College/University/Board	Year of Passing/ Awarded
M.Sc.	Bharathidasan university	1989
M.Phil.	University of Madras	1990
Ph.D.	Bharathidasan University	2011

3. TEACHING EXPERIENCE

S. No.	Institution	Duration	No. of Years	
	Histitution	Duration	UG	PG
1.	Nehru Memorial College,	1993 – till date	28	13
	Puthanampatti	1993 – uni date		13

4. RESEARCH EXPERIENCE (in years) : 14 years

5. AREA OF RESEARCH

Biological Oxidation, Corrosion studies and Computational chemistry

6. RESEARCH GUIDANCE (In Numbers)**

Program of Study		Completed	Ongoing
Dagaanah	Ph. D.	03	02
Research	M. Phil.	25	-

7**. PUBLICATION(S) (In Numbers)

Journal(s)		Proceeding(s)		Book(s) /	
International	National	International	National	Chapter(s) / Monograph(s) / Manual(s)	
11	-	01		-	

Cumulative Impact Factor (as per JCR)	2.09
h-index	4
Total Citations	84

8**. PRESENTATION(S) (In Numbers)

Events	International	National	State	Regional
Conference(s)	03	01	02	01
Seminar(s)	04	04	-	-

9**. PARTICIPATION (In Numbers)

Events	International	National	State	Regional
Conference(s)	03	01	02	01
Seminar(s)	04	04	-	-
Workshop(s)	02	02		

10**. PROFESSIONAL DEVELOPMENT (In Numbers)

Orientation Programme(s)	Refresher Course(s)	Faculty Development Programme(s)
01	03	04

11. EVENT(S) ORGANIZED

1.	One day Workshop on Micro techniques in Practical Chemistry	Dr. Alex Ramani, Associate Prof. of Chemistry, SJC, Trichy	11.12.14	Autonomous Grant	College Level
2.	Introduction to Bio Informatics	Dr. A. Rajasekaran DSC of Tech., Trichy	16.03.15	Autonomous Grant	College Level
3.	Nano technologies: opportunities and excitement	Dr. S. Ananthan, Associate Prof. of Chemistry, NIT, Trichy	19.02.16	Autonomous Grant	College Level

5.	Inter- Collegiate competition – CHEM RACE- 16 Seminar on	Dr. A. Peter Pascal Regis, Associate Prof. of Chemistry, SJC, Trichy Dr. P. Pandian Associate	1.03.16	Autonomous Grant	Inter College level
3.	"Dynamic Stereochemistry"	Prof. of Chemistry, PEVR, Trichy	14.3.16	Autonomous Grant	College Level
6.	Golden Jubilee Alumini Meet		10-12- 2017	Chemistry department	-
7.	Carbon Nano Tubes	Dr.S. Manivannan Assistant professor, Department of Physics, National Institute of Technology, Trichy	16.3.201 7	Chemistry department	Chemistry Association
8.	Electronic Spectra of Complexes	Dr. S.R. Bheeter Associate Professor SrimadAndavan Arts and Science College Trichy	08.03.2018	Management	Department level
9.	Advanced Materials for Electochemi cal Application	PrabhakaranArunachal am Assistant professor of Chemistry Electro chemistry Research Group, Chemistry Department, Science College, King Saud University, Riyadh-11451, Kingdom of Saudi Arabia	10.8.201	Management	Department level
10	Students: We " The Pillars of our Nation"	Mrs. S. SanthiSankar Faculty, Delhi Universtiy New Delhi	16.03.2018	Management	Department level

12. SERVED AS A RESOURCE PERSON (INVITED TALKS / GUEST LECTURES)

S.No.	Staff	Title of the talk	Date	Visiting College/University	National /International
1.	Dr. A. Sekar	Molecular Spectroscopy	28.9.2015	Dhanalakshmi Srinvasan College of Arts & Science for Women	Guest Lecture
2.	Dr. A. Sekar	General Chemistry	26.08.2015	Training Program for BT teachers, Thuraiyur region	Special Lecture

13. **DETAILS OF MEMBERSHIP**

Academic Bodies (Board of studies)	Board of studies in AVC College Mayileduthurei
	Mayiladuthurai
	PG Chairman in Academic council
	Doctoral committee member for
	Ph.D scholars
	Member of PG Board of studies in
	BDU, Trichy
	Madurai kamaraj University
	UG,PG Examination Board of
	chairman

14. ANY OTHER ACTIVITIES

Number of Ph. D. thesis evaluated	one
Number of Ph. D. Public Viva Voce Examination conducted	one

15. DETAILS OF RESEARCH GUIDANCE

S.No	P.hD. Scholar	Reg.No.	Title
1	K. Palanisamy	6284/Ph.D.K2/Part	The Inhibition of corrosion of carbon
	(Completed-	Time/April	steel
	21.12.2018)	2014/20.03.20	by some Heterocyclic compound
	,	14	Derivative in aqueous medium
2	M. Mhonraja	7049/Ph.D.K2/Part	Biomimic system for activation of
	(Completed-03-11-	Time/April	Oxygen Molecule with the enzyme
	2020)	2014/20.03.2014	Peroxidase

3	F. Paularokiadoss (Submitted)	7208/Ph.D.K2/Part Time/July 2014/23.06.20 14	Quantum Chemical Investigations
4	Mr. P. JothiMurugan	Ref. 19462/Ph.D.K2/Chem ist ry/Part Time(3- 5)/November 2018/Date:11.12.2018	Green Synthesis and Characterization Zinc oxide Nanoparticles from Medicinal Plants
5	Mr.P. Rajivgandhi	Ref. 27513/Ph.D.K2/Chem ist ry/Part Time/January – 2018/Date:17.07.2018	Synthesis and Characterization of heteroatom doped carbon for Super capacitor application

	M. Phil. (Completed)							
S. No.	Name	Title of thesis	Year of award					
1.	K.Ganesan	Growth and characterization of L- Lysine doped ADP crystals	21.04.2010					
2.	G.Suresh	Growth and characterization of L- Leucine doped ADP crystals	27.04.2010					
3.	G.S. Ganesh	Computational study of inclusion complexation of sulphanilamide Drugs with \(\beta\)-cyclodextrin	01-10-2012					
4	S.Karthikeyan	Synthesis and Spectral Studies of μ-						
5.	A. Elavarasan	Synthesis and crystal study of µ-peroxo Bis{Ethylenediamine)(Diethyllenetria mine} Di-cobalt (III) perchlorate	02.09.2014					
6.	C. Thamarai	Kinetics of oxidation of L-Phenyl alanine by peroxox comples in aqueous medium	08.09.2014					
7.	S. Manikandan	Growth and characterization of Niacin Doped KDP crystals	19.09.2014					
8.	N.Sowmiya	Growth and characterization of succinamide Fopped KDP crstals	31.01.2015					
9.	P.Selvaraj	Phytochemical and GC-MS Analysis of sphaeranthus indicus Medicinal plant in ethanol solvent	17.08.2015					
10.	S.Valarmathi	Green synthesis and characterization of ZnO Nano particles by Spharanthus Indicus Leaves	25.08.2015					
11.	A. Alphones Reena	Phytochemical Screening and GC-MS Analysis of Spharanthus Indicus in Acetone solvent	04.09.2015					

12. K.Sadique Basha		Spectral studies of some Medicinal	21.01.2015	
12.	K.Sadique Basna	Herbal products	31.01.2015	
13.	S. Nirmala	Green synthesis and characterization of	20.04.2016	
13.	S. Miriliaia	ZnO nano particles	20.04.2010	
14.	M.Anbarasi	synthesis and characterization of ZnO	03.10.2017	
17.	Wi.Alibai asi	Nano particles by solanum Trilobatum	03.10.2017	
		synthesis and characterization of ZnO		
15.	R. Theivanai	Nano particles by Plectranthus	25.10.2017	
		Amboinicus		
		synthesis and characterization of		
16.	P.Preethi	ZnO7Nano particles by	05.10.2017	
		Morinda8Citrifola		
17	P.Senthil kumar	Kinetics of oxidati9n of Tryptophan by	25.01.2017	
17	1 .Sentim Kumai	peroxo complex in aueous medium	25.01.2017	
		Synthesis and characterization of ZnO		
18.	S. Thangaraju	Nano particles by using	01.02.2018	
		Cardiospermum Halicacabum		
19.	A.P.	synthesis and characterization of ZnO	29.04.2019	
	Annapooranam	Nano particles by using Enicostema		
		Axillare		
20.	T. Saravanan	synthesis and characterization of ZnO	29.07.2019	
20.	1. Saravanan	Nano particles by using Urtica Dioica	29.07.2019	
21	G. Michae	synthesis and characterization of Zinc	28.12.2020	
	Sakila	oxide Nano particles by using	20.12.2020	
		Solanum Nigrum Water Analysis a Perspective study		
22	P.Mary Jaculine	with Soil characteristics in	28.12.2020	
		Kallakurichi District		
23	S. Kavitha	Growth and Characterization of	28.12.2020	
	S. IXAVILIA	Valine Doped KDP crystals	20.12.2020	
24	R.Manimaran	Biological Oxidation of Isoleucine by	13.01.2021	
	Athrainmai all	μ-peroxo complex in aqueous	13.01.2021	
		Medium Kinectic and Mechanic study of		
25	N.Jeyachandran	Biomimic Oxidation of L-Sorbose by	13.01.2021	
		μ-Peroxo complex in Aqueous		
		Medium		

16. **DETAILS OF PUBLICATIONS**

S.NO	JOURNAL NAME			Impact Factor	National/Inter national
		Chemistry of group-10 metals	140 Article number		1)
	Caronasor J		101(2001)		ona
	Accounts	complexes [TM(CO)3AlX]: a DFT	https://doi.org/10.1 007/s00214-021- 02801-5	1.702	International (springer)

2.	3.4	Coordination of indium 75 (2021) 311-324. monohalide with group-10 ISSN: 1336 - 9075 metal carbonyls [TM(CO) ₃ (InX)]: a DFT study		1.680	International (springer)
3.		Group 10 Metal Gallylene	1197 (2021) 113139- 113151 ISSN: 2210-271X	1.403	International(Els evier)
4.	Computational and Theoretical Chemistry	A DFT Study on Structural and Bonding Analysis of Transition- Metal Carbonyls with terminal Haloborylene Ligands [M(CO)3(BX)] (M=Ni, Pd, and Pt; X=F, Cl, Br, and I	1177 (2020) 112750- 112758 ISSN: 2210-271X	1.403	International(Elsevier)
5.	Journal of Emerging Technologies and Innovative Research	DFT studies on the Adsorption of CFC over the Copper Embedded Nitrogen Doped Graphene	April 2019, volume 6, issue 4. (ISSN- 2349-5162)	5.87	International
6.	INFOK ARA RESEA RCH	Bio-mimic oxidation kinetics of Nicotinic Acid by µ-peroxo complex in aqueous Medium	Volume 8, issue 9, September 2019 (ID: IK – 2891)	5.3	International
7.	International Journal of Scientific research and Review	Kinetics and Mechnism of Bio- mimic Oxidation of Calcium D- pantothenate by µ- peroxo complex in acid Medium	Volume 8, Issue 8, August 2019 (ISO:7021-2008) ID:IJSRR/D2393	6.1	International
8.	Journal of Emerging Technologies and Innovative Research	kinetic and mechanistic study of bio-mimic oxidation of l- valine by M-peroxo complex in acid medium	February 2019, Volume 6, Issue 2	0.2733	International

		E 1 4 6	12 (2019) 50 (0	0.425		
		Evaluation of	12 (2018) 50-60	0.435		
		chromotrope FB dye				
	Surfaces and	as corrosion inhibitor				
9.	Interfaces	using electrochemical			Elsevier	
	Interfaces	and theoretical studies			Internation	
		for acid cleaning			al	
		process of				
		petroleum pipeline				
	Egyptian J of	"Inhibition study of	July (2017) 7923 –	1.441		
10.	Petroleum	Erioglaucine disodium salt	(Elsevier)		International	
	1 cu oicuili	on carbon steel in HCl				
		medium				
		using weight loss,				
		Electrochemical and Thermodynamic				
		properties				
		"Investigation of corrosion	2(4) (2016) 126-129	(ISSN:		
11.	$\int of Adv.$	protection efficiency of		2455-	International	
11.	Electrochemistry	Indigo carmine on Carbon		0205),	International	
	, , , , , , , , , , , , , , , , , , , ,	steel in acidic environment				
1-	Asian Journal	Biomimic oxidation of	Vol.23, No.	0.54		
12.	chemistry	pyridoxine by Peroxo	1(2011)265-267		International	
	chemistry	complex: A kinetic and Mechanistic study				
		Kinetics and Bio-Mimic	34, No.4,855-	0.33		
1.2	Oxidation	oxidation studies of μ -	864(2011)	0.55	T	
13.	communication	peroxo complex with L-	, ,		International	
		Leicine in aqueous				
		medium	455 (2005)			
		Photophysical behavior of	177(2006) 144-155.	3.26		
	Journal of photo	4- hydroxy-3,5-				
14.	chemistry and photobiology A:	dimethoxybenzoic acid in			International	
	photobiology A:	different solvent, pH and				
		β-cylodextrin				
			Vol.23,	0.483		
	Indian Journal	Inclusion complex of	No.23,No.1(2011),26			
15.	of Chemistry	1,2,3- trihydroxybenzene	5-267		International	
		with α - and β -				
		cyclodextrin				

(b) **PROCEEDING(S)**

S. No	Name of the author/s	Title of the paper	Nation al/ Intern ational	Name of Conference	Page No & Year	ISBN
	Dr. A. Sekar	DFT studies on the Adsorption of CFC over the Copper Embedded Nitrogen Doped Graphene	Interna tional	Internation al conference on Recent developme nt in materials and chemical science	April 2019, volume 6, issue 4. (ISSN- 2349-5162)	ISSN-2349-5162

17. **DETAILS OF PRESENTATION(S)**

(Conference(s) / Seminar(s))

S. No.	Name of the Paper	Name of the Conference / Seminar	National/ International	Place	Duration/ Date
1.	Adsorption and Quantum chemical studies of EDS as corrosion inhibitor for carbon steel	CSIR-CECRI Karaikudi Madurai Kamaraj University	International	Karaikudi	11.10.2017

18. **DETAILS OF PARTICIPATION**

S.No.	Name of the Conference	Conducted by	Place	Duration/ Date	National/ International
1.	International conference on chemistry in synergy with materials and biology	Bishop Heber college, Trichy	Trichy	10.01.2014 and 11.01.2014	International
2.	One day FDP on 'Impact of Research on Teaching in Higher Education'	Nehru Memorial College	Puthanam patti	11.06.2014	One day seminar
3	One day Workshop on Micro techniques in Practical Chemistry	Nehru Memorial College	Puthanam patti	11.12.2014	workshop
4.	Faculty Develop ment Program me	Nehru Memorial College	Puthanam patti	5.08.2015	One day seminar
5.	Faculty Development Programme on Revisiting Examination system in the current scenario	UGC Autonomous Grant	Nehru Memorial College, Puthanam patti	19 th March 2016	One day seminar

6.	Adsorption and	CSIR-CECRI	Karaikudi	11.10.2017	National
	Quantum	Karaikudi			
	chemical studies				
	of EDS as				
	corrosion				
	inhibitor for				
	carbon steel				
7.	Adsorption and	Madurai	Madurai	11-12-2018 &	International
	Quantum	Kamaraj		12-12-2018	
	chemical studies	University			
	of Indigo carmine				
	as corrosion				
	inhibitor for				
	carbon steel				