




**P.E.S. College of Engineering, Mandya – 571401**  
(An Autonomous Institution, affiliated to VTU, Belagavi)

**Faculty Profile**

**General**

Name	<i>Dr. H. Ramachandra</i>	
Designation,	<i>Professor and Head</i>	
Department & Affiliated Institution	<i>Department of Chemistry, P.E.S College of Engineering, Mandya – 571 401, Karnataka.</i>	
Research Area	<i>Physical Organic Chemistry</i>	
Contact Number	<i>+91 9448951446</i>	
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**Academic Profile**

**Educational Qualifications**

Degree	College	University	Year of Passing	%	Class
Ph. D.	<i>Department of Studies in Chemistry</i>	<i>University of Mysore, Mysuru</i>	<i>1997</i>	-	-
M. Sc.,	<i>Department of Studies in Chemistry</i>	<i>University of Mysore, Mysuru</i>	<i>1986</i>	65.36	<i>First - Class</i>
B. Sc.,	<i>Bharathi College, Bharathinagara, Mandya District</i>	<i>University of Mysore, Mysuru</i>	<i>1984</i>	74.33	<i>First - Class</i>

**Professional Experience**

Organization & Department	Designation	Period	Total Experience
<i>P.E.S. College of Engineering, Mandya</i>	<i>Lecturer, Senior Lecturer, Selection Grade Lecturer</i>	<i>1987 -2000</i>	<i>13 Years</i>
<i>P.E.S. College of Engineering, Mandya</i>	<i>Assistant Professor Professor</i>	<i>2000 -2007 2007 - till date</i>	<i>7 years 13 Years</i>

**Reports on Academic and Research Activities**

**Academic Activities**

Course/Topic Taught	Teaching Records
B.E	<i>B.E.: Engineering Chemistry (Undergraduate) B.E.: Engg Chemistry Practical: 12 Experiments were completed for I / II sem B.E students. B.E.: Open Elective: Industrial Chemistry for VIII sem</i>

**Research Guidance (Candidates Awarded / Pursuing Ph.D / M.Sc., Engg./ M.Phil)**

Degree	Ph. D.	M.Sc., Engg.	M.Phil
Awarded	<i>01</i>	<i>Nil</i>	<i>Nil</i>
Pursuing	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>

**Sponsored Research Projects (List of Projects taken up /completed and funds receiver & funding sources)**

Project Title	Project Funded by	Grants Sanctioned	Grants Received
<i>AICTE- ISTE</i>	<i>AICTE, New-Delhi</i>	<i>Rs. 8.0 lakh</i>	<i>Rs 8.0 lakh</i>

**Research Publications in Refereed Journals and Conferences/Symposia**

No. of Publications in	National	International
Journals	<i>06</i>	<i>16</i>
Conferences/Symposia	<i>16</i>	<i>10</i>

**Other Important Responsibilities held in the College**

<i>1. Head, Department of Chemistry</i>	<i>3. BoS and BoE Chairman</i>
<i>2. Member for College Council</i>	<i>4. Member for Academic Council</i>

## PUBLICATIONS

### LIST OF JOURNALS

1. H. Ramachandra, K.S. Rangappa and D.S. Mahadevappa (1996). Oxidation of substituted Phenethyl Alcohols by Sodium-N-Chloro-Benzene-sulphonamide: A kinetic study. *Journal of Physical Organic Chemistry*, (UK), Vol. 9, pp. 279-286.
2. H. Ramachandra, K.S. Rangappa, D.S. Mahadevappa and N.M.MadeGowda(1996). Osmium (VIII) catalyzed Kinetics and Mechanism of Indoles oxidation with Aryl -N- Haloamines in Alkaline medium. *International Journal of Chemical Kinetics* (U.S.A.) Vol. 28, pp. 265-274.
3. H. Ramachandra, K.S. Rangappa , D.S. Mahadevappa and N.M.MadeGowda (1996). Oxidation of substituted Phenethyl Alcohols by Sodium – N – Chloro –P-toluene- sulfonamide: A Kinetic study. *Monatshefte fur Chemie*, (Austria) Vol. 127, pp. 241-255.
4. H. Ramachandra, K.S. Rangappa and D.S. Mahadevappa. (1996). Kinetics and mechanism of oxidation of phenethyl alcohols by bromamine – T in acid medium. *Indian Journal of Chemistry*, Vol. 35B, pp.703 – 707
5. H. Ramachandra, K.S. Rangappa and D.S. Mahadevappa. (1996). Mechanistic investigation of the oxidation of phen-ethyl alcohols by sodium –N- bromo- Benzene sulphon-amide in acid medium. *Proceedings of the Indian Academy of Sciences India*, Vol. 108, pp. 485-494
6. H. Ramachandra, K.S. Rangappa , D.S. Mahadevappa and N.M.MadeGowda (1997). Ruthenium (III) catalyzed Mechanistic studies of oxidation of benz-hydrols by sodium-N- cholo-p- toluene-sulphon-amide in HCl medium. *International Journal of Chemical Kinetics* (U.S.A.) Vol.29, pp.773 – 780
7. H. Ramachandra, D.S. Mahadevappa and K.S. Rangappa. (1997).Kinetics and mechanism of oxidation of  $\alpha$ -Phenyl benzene methanols by sodium-N- bromo - p- toluene-sulphon-amide catalyzed by Ruthenium(III) *Indian Journal of Chemistry*, Vol. 36B, pp. 333 – 338
8. H. Ramachandra, D.S. Mahadevappa and K.S. Rangappa. (1997). Mechanistic studies of oxidation of diphenyl methanols by sodium –N-cholo-benzene sulphon-amide catalyzed by Ruthenium (III). *Journal of Physical Organic Chemistry* (U.K) Vol.10, pp.159-166.
9. H. Ramachandra, D.S. Mahadevappa and K.S. Rangappa. (1997). Oxidation of diphenyl carbinols with Bromamine-B in acid medium catalyzed by Ruthenium(III) : A Kinetic and Mechanistic study. *Oxidation Communications*, (Bulgaria )Vol. 20, 4, pp.565-575
10. H. Ramachandra, K.S. Rangappa , D.S. Mahadevappa and M.B. Jagadeesha.(1999). Mechanistic investigation of the oxidation of Indoles with bromamine- T in alkaline medium catalyzed by Os (VIII).*Oxidation Communications*, (Bulgaria )Vol. 22, 2, pp.248 – 258.
11. H.Ramachandra, B.Manju and H.D.Revannasiddappa.(2000).Gas chromatographic determination of Pipazethate hydrochloride and Thioproperazine mesylate. *Indian Drugs*, (India) Vol.39, 11, pp. 589 – 592.
12. Akshatha. A, Sundara Rajan. J. and H. Ramachandra. (2014). A Practical approach for adoption of liquid-liquid extraction for removal of sulphurCompounds from mineral transformer oil. *Chemical Engineering sciences-(India)*, D-14-0033,Vol. 07, pp. 551-557.
13. Akshatha. A, Sundara Rajan. J. and H. Ramachandra. (2015) Understanding the Reaction kinetics of DBDS under Thermal Ageing of Mineral Insulating oil. *International Journal of Chemistry*, ISSN, 2051-2732, Vol. 36. pp. 1746-1753.
14. Akshatha. A, Sundara Rajan. J. and H. Ramachandra (2015). Laboratory Validation of Method of Solvent extraction fir removal of Sulphur compounds from Mineral oil. *IEEE Transactions on Dielectrics and Electrical Insulation*, Vol. 22, 5, pp. 2572 – 2580.
15. Akshatha. A, Sundara Rajan. J. and H. Ramachandra. (2015). Study of degradation of sulphur compounds and depletion of metal passivators during thermal ageing of mineral oil. *IEEE Transactions on Dielectrics and Electrical Insulation*, Vol.22, 5, pp.2786 - 2797.
16. Akshatha. A, Sundara Rajan. J. and H.Ramachandra. (2016).Moisture dynamics in paper oil insulation of sealed transformers in presence of sulphur compounds. *International Transactions on Electrical Energy*

17. H. Ramachandra, Akshatha. A and Sundara Rajan.J. (2016). Understanding the effects of Copper Sulphide in transformer insulation by different Chemical and Analytical Techniques. Journal of Environmental Research and Development,( India), ISSN0973 – 6921; Vol. 10, 04, pp. 621-634.
18. Chandrashekar, B. M. Venkatesh, S. Ananda, Shivalinge gowda and H. Ramachandra. (2016).Oxidation of Amitriptyline by Bromamine-T in acidic buffer medium: A Kinetic & Mechanistic approach: International Journal of Chemical, Molecular, Nuclear, Materials and Metallurgical Engineering,(UK), Vol.10, pp. 08.
19. H. Ramachandra, Akshatha. A and Sundara Rajan. J. (2018). Recovery of in-service mineral transformer oil containing reactive sulphur compounds by Liquid-liquid extraction method. Journal of Environmental Research and Development, (India), ISSN0973 – 6921; Vol.10, 06, pp. 721-734.
20. H. Ramachandra, N.P. Bhagya, P.A.Prashanth, R. Hari Krishna, B.M. Nagabhushana. (2020) Enhancement of luminescence properties of SrTiO<sub>3</sub>:Sm<sup>3+</sup> nano-phosphor by charge compensator Li<sup>+</sup> ion. Optical Materials: International Journal of Elsevier, (USA), Vol.107, 110115, pp.1-7.

### LIST OF CONFERENCES

#### **Research papers presented in National and International Conferences**

1. Oxidation of indole and substituted indoles by N-Metallo-N- aryl sulphon-amides: A Kinetic study. IUPAC 12<sup>th</sup> conference on Phy. Org. Chemistry, Padova, Italy, Aug 28<sup>th</sup>, Sept 2<sup>nd</sup>, 1994. H. Ramachandra, K.S. Rangappa and D.S. Mahadevappa.
2. “Mechanistic investigations of oxidation of indols with N- haloarene sulphomidates in alkaline medium catalyzed by Os (VIII)”. National seminar on Correlation Analysis, Annamalai University , T.N, Jan, 20<sup>th</sup> -22<sup>nd</sup> , 1995.H. Ramachandra, K.S. Rangappa and D.S. Mahadevappa.
3. “Oxidation of substituted phenethyl alcohols by sodium –N –chloro- benzene sulphonamide: A Kinetic study”. National symposium on Correlation Analysis, Annamalai University, T.N, Jan 24<sup>th</sup>, 1996. H. Ramachandra, K.S. Rangappa and D.S. Mahadevappa.
4. “Oxidation of substituted phenethyl alcohols by Chloramine-T: A kinetic study”. 15<sup>th</sup> Annual convention of the Indian association for Cancer Research and National symposium, AIMS, Karnataka, India, Feb, 22<sup>nd</sup> -24<sup>th</sup> , 1996.H. Ramachandra, K.S. Rangappa and D.S. Mahadevappa.
5. Kinetics and Mechanism of oxidation of phenethyl alcohols by bromamine-T. Conference of Recent Advances in Physical Organic Chemistry, Department of Chemistry, Virudhunagar, T.N, India, March. 29<sup>th</sup>, 1996. H. Ramachandra, K.S. Rangappa and D.S. Mahadevappa.
6. Biphase Hammett  $\sigma$  (rho) for the reaction of diphenylmethanols with organic halo- amines in presence of ruthenium (III) catalyst: Oxidation mechanism”. 7<sup>th</sup> International Conference on Correlation Analysis in Chemistry (CAIC- VII), Fukuoka, Japan, Sep 1<sup>st</sup>-6<sup>th</sup> ,1996. H. Ramachandra, K.S. Rangappa and D.S. Mahadevappa.
7. “Oxidation and mechanistic investigations of benzhydrols with sodium –N chloro- p-toluene sulphonamide catalyzed by ruthenium chloride in HCl medium. 3<sup>rd</sup> National Conference on Correction Analysis, Department of Chemistry, University of Mysore, Mysore, India, Sept, 21<sup>st</sup> – 22<sup>nd</sup> , 1998.H. Ramachandra, K.S. Rangappa and D.S. Mahadevappa.
8. Frequency Domain Spectroscopy and Polarization depolarization Measurements for Detection of Copper Sulphide Migration in Transformer. IEEE International Conference on electrical insulation and dielectric phenomenon, Shenzen, China, October 20<sup>th</sup> -23<sup>rd</sup> , 2013.H. Ramachandra, Akshitha A, Sudra rajan. J. and Ravi kumar. A.
9. Copper corrosion phenomenon in transformers due to DBDS in mineral transformer oil. IEEE International Conference on electrical insulation and dielectric phenomenon, Shenzen, China, Oct, 20<sup>th</sup> -23<sup>rd</sup>, 2013, pp.826-829,DOI:10.1109/CEIDP.2013.6747432. H. Ramachandra, Akshitha A, Sudra rajan. J. and Ravi kumar. A.

10. Studies on Chemical and Dielectric Phenomenon in Paper-oil insulation due to sulphur compounds in mineral oil. Electrical Insulation Conference, Philadelphia, USA, June, 8<sup>th</sup> -11<sup>th</sup> , -2014, pp. 281-285, DOI: 10.1109/EIC.2014.6869392. H. Ramachandra, Akshatha A, , Sundara Rajan. J. and Ravi kumar.A.
11. Assessment of Passivator Mineral Oil in Mitigating the Formation of Copper Sulphide in Transformers. IEEE International Conference on Liquid Dielectrics Bled, Slovenia, June 30<sup>th</sup> -July 3<sup>rd</sup> , 2014, 281-285, pp, 1-4, DOI: 10.1109/ICDL.2014.68693137. H. Ramachandra, Akshatha A, Sundara Rajan. J. and Ravi kumar.A.
12. Synthesis of cubic Venadia Nano partials: Study of Optical, Photo-Luminescence properties and Applications. 5<sup>th</sup> International Conference on Luminescence and its applications. PES Institute of Tech, Bangaluru & Luminescence Society of India on Feb, 9<sup>th</sup> -12<sup>th</sup> , 2015. H. Ramachandra, Akshatha A and Chandrashekar
13. Experimental methods of investigation of the formation, effects and prevention of Corrosion by Sulphur compounds in mineral insulation oil Transformers. National Conference on Modern Materials, Devices and Applications sponsored by UGC Maharani's Science College for Women, Bangalore, on 7<sup>th</sup> -8<sup>th</sup> , Jan, 2016. H. Ramachandra, Akshatha A, and Sundara Rajan. J.
14. A mitigation technique to prevent Copper corrosion in Transformer by using Metal Passivators. International Conference on Energy Environmental and Engineering. Dept of Chemistry and Coimbatore Institute of Tech, India on Feb 29<sup>th</sup> , March, 1<sup>st</sup> -2<sup>nd</sup> , 2016. H. Ramachandra, Akshatha A, and Sundara Rajan. J.
15. Analysis of Total sulphur compounds in mineral oil service Transformers. International Conference on Recent Advances in Material and Chemical sciences, March, 2<sup>nd</sup> -5<sup>th</sup> , 2016. Department of Chemistry, Bunelkhand University, Jhansi (UP) H. Ramachandra, Akshatha A, and Sundara Rajan. J.
16. Synthesis and Characterisation of Methyl Methacrylate blended with poly-amide resins. International Conference on Advanced Materials and Technology. S.J. College of Engineering, Mysore, India on 26<sup>th</sup> -28<sup>th</sup>, May, 2016. H. Ramachandra, Akshatha A and Chandrashekar
17. Modern techniques to avoid the failure of power Transformer due to the presence of DBDS in mineral oil. 2<sup>nd</sup> International Conference on Material Science and Technology. Department of Physics, St.Thomas College, Palai, Kerala, India on 5<sup>th</sup> -8<sup>th</sup> , June- 2016.H. Ramachandra, Akshatha A, and Sundara Rajan. J.
18. Understanding the effects of Copper Sulphide in transformer insulation by different Chemical and Analytical Techniques. 8<sup>th</sup> International Congress of Environmental Research (ICER-16). Luebeck Applied Science University, Luebeck,Germany, July, 27<sup>th</sup> -28<sup>th</sup> , 2016. H. Ramachandra, Akshatha. A and Sundara Rajan. J.
19. Oxidation of Amitriptyline by Bromamine-T in acidic buffer medium: A Kinetic & Mechanistic approach at 18<sup>th</sup> International Conference of World Academy of Science, Engineering and Technology, London, UK, August, 25<sup>th</sup> -26<sup>th</sup> , 2016., Chandrashekar, B.M.Venkatesh, S. Ananda & Shivalinge Gowda H. Ramachandra.
20. Kinetics and Mechanism of Oxidation of Piperazines by N-Chloro-P-Toluene Sulphonamide in acidic buffer medium. 104<sup>th</sup> Indian Science Congress, Tirupati, India, PP: 207, January, 3<sup>rd</sup> -7<sup>th</sup>, 2017. , Chandrashekar, B. M.Venkatesh S. Ananda. and H. Ramachandra.
21. Analysis of Total sulphur compounds in mineral oil service Transformers. National Seminar on current trends in Nano-technology. Department of Chemistry, JNNCE, Shivamogga, Karnataka, on 14<sup>th</sup> May 2018. H. Ramachandra, Akshatha A, and Sundara Rajan. J.
22. A mitigation technique to prevent Copper corrosion in Transformer by using Metal Passivators.20<sup>th</sup> National Conference of Electro-Chemists (NCE-20) CSIR-CECRT and Vellore Institute of Technology, Vellore on 1<sup>st</sup> -8<sup>th</sup> , June, 2018. H. Ramachandra, Akshatha A, and Chandrashekar.
23. Synthesis and characterization of carbon nano particles. Department of Chemistry, JSS Science and Technology University, Mysuru on 28<sup>th</sup> Feb and 1<sup>st</sup> March 2019. H. Ramachandra, Akshatha. A, Chandrashekar and Prashanth. P.A.
24. Characterization and Biological Study of Pectin extracted from Pomelo Peel Blended with Thymol. Department of Chemistry, JSS Science and Technology University, Mysuru , 6<sup>th</sup> - 7<sup>th</sup> Sept- 19. H. Ramachandra, Sahana J, Ranjitha H. N and Bindya. S

25. Kinetics and Mechanism of Oxidation of Amitriptyline Drug by Chloramine-T in acidic buffer media: Spectrophotometrically at 107<sup>th</sup> Indian Science Congress, GKVK, Bengaluru. India, January 3<sup>rd</sup> -7<sup>th</sup> , 2020. , Chandrashekar, B. M.Venkatesh S. Ananda and H. Ramachandra.
  
26. Ruthenium III catalyzed mechanistic studies of oxidation of benzhydrols by Chloroamine-T in HCl medium. International conference of emerging trends in catalysis, VIT, Vellore and Royal Society of Chemistry, UK , 6<sup>th</sup> – 8<sup>th</sup> January 2020. H. Ramachandra, Chandrashekar and Prashanth. P.A.



