



# Dr Chithra P G

Associate Professor of Chemistry

## ADDRESS & EMAIL

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## QUALIFICATION

**MSc, MPhil, Ph.D**

## DATE OF JOINING

**11.03.1997**

## EXPERIENCE IN YEARS

**24 years**

## AREA OF SPECIALIZATION

**Physical Chemistry**

## ADMINISTRATIVE DISTINCTION

- Research Committee Coordinator(2020-21)
- International Webinar series Coordinator 2020 July
- PG Admission committee convenor (2020-21)
- Library Advisory Committee member (2015-20)
- Head of the Department
- Encon club member (2019-2021)

## PAPER PRESENTATIONS

- International seminar on Supra and nano chemistry of bio active molecules 2019-A novel sensor for ascorbic acid and uric acid based on Graphene-Chitosan composite .
- International seminar on advanced materials June2019-A novel voltammetric sensor for morphine detection based on electrochemically synthesized Poly(aminobenzenesulfonic acid)/Reduced graphene oxide composite.
- International conference on energy and environment December 2019-Novel Enzyme Biosensor for catecholamines.
- Green approaches towards chemical synthesis-A novel electrochemical sensor based on copper-poly(alanine)film for the determination of morphine.
- 31st Kerala science congress 2019-A novel electrochemical sensor for the determination of morphine based on the conducting polymer poly (CTAB)/Graphene oxide nanocomposite.
- International conference on emerging frontiers and challenges in chemistry February2014-Thermal and ageing of maleated natural/organoclay nanocomposites.
- National seminar on Frontline approaches in material science and computational chemistry March2018-a)A review on green synthesis of nanoparticles. b)Strain sweep and cure characteristics of nitrile rubber/closite 30B nanocomposites.

- Green chemistry-Environmental and Economic benefits June 2014-Synthesis characterization and application of Sn (IV)phosphorous acid in the nano form.

## **PARTICIPATION IN SEMINARS/ CONFERENCES/ WORKSHOPS**

- Workshop on Practicals in Chemistry
- Theory and Applications of Fourier Transform Spectroscopy in Chemistry
- Regional workshop on Computer Applications in Chemistry
- National workshop on applications of computational chemistry in spectroscopy
- Lecture on Computational Chemistry
- G CHEM Paint training online seminar
- College level Training Programme in General Informatics
- Catalysis for Green Chemistry
- Advanced Polymer Materials Participated in the Five day National E-workshop on 'Advanced materials: Properties and Applications organised by NIT,Karnataka, Surathkal.
- UGC Sponsored Orientation Programme/ Refresher courses
- Completed one orientation course from 24-11-1999 to 21-12-1999.
- Participated in the Refresher course in Chemistry from 02-12-02 to 23-12-02
- Participated in the Refresher course in Chemistry from 03-09-2004 to 24-09-2004
- Participated in the Refresher course in Chemistry from 30-08-2007 to 20-09-2007.

### **HRDC Courses attended other than Orientation and Refresher courses:**

- Stimulating Teachers through advanced training programme (STAT) workshop for college teachers on chemistry materials. NIIST,TVM. 13.09.2010 to 17.09.2010. Govt of Kerala.
- Five day workshop on Restructuring of B.Sc.chemistry Programme. University Buildings TVM. 02.03.2009 to 06.03.2009. University of Kerala
- Familiarize teachers with the semesterization of the UG Programme under choice based credit and semester system. UGC-ASC,TVM. 5th and 6th August 2010. University of kerala

## **PUBLICATIONS IN BOOKS OR JOURNALS**

1. Synthesis, Characterization and Application of Sn(IV) Phosphorous acid in the nano form,International J of Engineering Research and Management,(2014).
2. Synthesis Characterization and Application of nanodimensional silver tungstate,P G Chithra & Vijayalekshmi V, International J of Advance research in science and Engineering(2015)
3. Synthesis and characterization of Sn(IV)phenyl phosphonate in the nano form,Chithra sumej&Beena Raveendran,(2008)

4. Studies on the effect of Montmorillonite clay in combination with Graphene oxide on the properties of chitosan, Suma S, Manoj S V & Chithra P G, International J of Chemistry Research, (2012).
5. Proton transport properties of tin phosphate, chromotropic acid anchored onto tin phosphate and tin phenyl phosphonate, Chithra sumej, P P Sharmila, Nisha J Tharayil & S Suma, Bull. Mater. Sci (2013).
6. Parachlorophenol anchored tin antimonate- An Inorgano Organic ion exchanger for the separation of heavy metals like Bi(III) and Cu (II), P G Chithra, R Raveendran & B Beena, Desalination, (2008)
7. Optical Electrical and Structural studies of nickel-cobalt oxide nanoparticles, Nisha J Tharayil, R Raveendran, Alexander Varghese Vaidyan & P G Chithra, Indian J of Engineering & Materials Sciences (2008).
8. O-Chlorophenol anchored tin antimonate-An ion exchanger for the separation of heavy metals, P G Chithra & B Beena, Indian J of chemical technology, (2008).
9. Green synthesis Characterization and Cyclic voltammetric studies of nano Zinc oxide, Chithra P G & Vijayalekshmi V, International J of Engineering, Science & Mathematics, (2017).
10. Graphene oxide supported palladium nanoparticle as an electrochemical sensor for epinephrine, S. Renjini, Pinky Abraham, T. Jyotish Kumar, V Anithakumary & P.G Chithra, A I P Conference Proceedings, (2019).
11. Catalytic activity of  $[\text{Cu}(\text{NH}_3)_4]^{2+}$  sorbed on an inorgano organic ion exchanger -tin(IV) phenyl phosphonate, P.G Chithra & B Beena, Oriental J of Chemistry, (2007).
12. Analysis of Effluents discharged to Ashtamudi Lake from China clay Industries, Suma S, Manoj S V & Chithra P G, Analysis of effluents discharged to ashtamudi lake from china clay industries, (2012).
13. An Electrochemical sensor based on Electrodeposited CTAB Film on Glassy Carbon electrode for detection of Morphine, Pinky Abraham, S. Renjini, V Anithakumary & P G Chithra, Asian J of Chemistry, (2019).
14. A novel voltammetric sensor for morphine detection based on electrochemically synthesized poly (P-amino benzene sulfonic acid )/reduced graphene oxide composite,, Pinky Abraham, S. Renjini, T E Nancy Mary, V Anithakumary & P.G Chithra, A I P Conference Proceedings (2019).
15. A comparative study of catalytic activity of tin phosphate and tin phenyl phosphonate, Chithra P G & Beena B, Indian J of Chemical technology, (2008).
16. A comparative study of bronsted acidity of tin phosphate and chromotropic acid anchored tin phosphate, P G Chithra & Nisha J Tharayil, Oriental J of Chemistry, (2008).
17.  $[\text{Cu}(\text{NH}_3)_4]^{2+}$  SnP as a catalyst, Chithra P G, Nisha J Tharayil & Beena B, Indian J of chemical technology, (2009).
18. Green synthesis of ZnO/MgO nanocomposites and their optical studies, Chithra P G, Poornima Vijayan P, Vijayalekshmi V & Renjini S, IJAIS, (2021).

## **Book chapter published**

- One Book chapter named Research Perspectives in Chemistry for sustainable development Published on 07-07-2020 Editors-Dr.Bindu Sharmila T.K, Dr.Sreesha Sasi,Dr.Smitha George.Publisher-Excel India - Photocatalytic decomposition of Malachite green in aqueous solutions under UV irradiation using natural rubber latex-Clay/TiO<sub>2</sub> nanocomposites.

## **Completed Research Projects**

Completed two minor research projects of UGC and one student project of STEC.

- 1.Synthesis characterization and application of some nanomaterials .
- 2.Inorgano organic ion exchangers.
- 3.Green synthesis of nanometal oxides.

## **MEMBERSHIP IN PROFESSIONAL BODIES**

- Executive member, ACT.

## **RESEARCH OUTPUT**

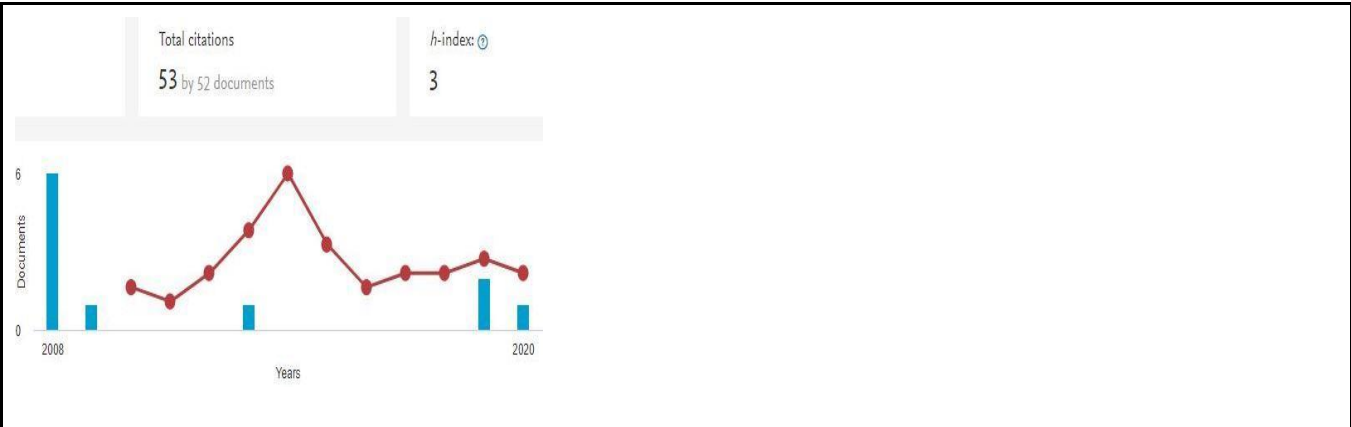
- Approved Research Guide, University of Kerala
- No of PhD produced - 2

## **CITATIONS AND INDEXING, IF ANY**

### **JOURNAL CITATIONS and INDEXING (h-INDEX)**

Scopus ID-23569227200

<https://www.scopus.com/authid/detail.uri?authorId=23569227200>



Google scholar-<https://scholar.google.com/citations?user=92wuC8IAAAAJ&hl=en>

