



Arya Vidyapeeth College
আর্য্য বিদ্যাপীঠ মহাবিদ্যালয়



Personal profile

Name of the Faculty: Dr. Pradyut Sarma

Designation: Associate Professor

Personal Information
Date of Birth: 29-01-1975
Gender: Male
Nationality: Indian

Address for correspondence:

H. No.: 80
C/O Late Nagendra Nath Sarma,
Dharma Sarma Path,
Guwahati – 781 016
P.O.: Gopinath Nagar
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Permanent Address:

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Date of joining the present service: 08-09-2000

Academic Qualification
MA, PhD

Teaching Experience
In UG level: 14 Years, 4 months

In PG level: No



Academic distinction i) B.Sc. (Major in Chemistry) 1st Class.
 ii) M. Sc (Specialisation in Inorganic Chemistry) 1st Class
 Research Date of obtaining / PhD Degree: 01-07-2011, Gauhati University

Experience Title of the PhD thesis:
 “SPECTROSCOPIC AND ELECTROCHEMICAL STUDIES OF THE INTERACTION OF METAL COMPLEXES WITH PHENOLATE SUBSTRATES ENCAPSULATED IN SURFACTANT MICELLES”

Length of research experience: 16 Years

Specialization (Area of interest): Inorganic Chemistry

No. Of research projects:

Title of the project	Funding agency	Amount (in Rs)	Status (ongoing/completed)
Spectroscopic and electrochemical Studies of Fe(NTA)(H ₂ O) ₂ complex encapsulated in surfactant micelles	UGC (Xth plan) No. F.5-4/2005-2006 (MRP/NERO)/1522.	75,000/-	Completed
Interaction of Metal Complex, Fe(SalenH ₂), with phenolate substrate (o-amino phenol) encapsulated in Aqueous solution of surfactant micelle – a model study for the catalytic oxidation reaction	UGC (Xth plan) No.F. 5-294/2007-08 (MRP/NERO)/6611	85,000/-	Completed

Redox and Spectroscopic Analysis of the Interaction of Fe(III) complex of N-Salicylidene-L-Amino Acids with Phenolate Substrate-Iron(III) Tyrosinate Models.	UGC (XIth Plan) No. F5-494/2011-12 (MRP/NERO)/11 724	2,00,000/-	Completed
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Publications

No. Of Research paper published: 10

Published Papers:

- i) Pradyut Sarma, *Study of the Pseudo-first order reaction kinetics of FeIII complex of N-Salicylidene L- alanine with catechol in aqueous micellar medium as a model of catechol dioxygenase.*, J. Ind. Chem. Soc., **2016**, 93(6), 1786-1790, ISSN 0019-4522.
- ii) Pradyut Sarma, Prabin K.Baruah and Okhil K. Medhi, *Interaction of catechol with FeIII tripodal ligand complex in aqueous surfactant medium: A kinetic Approach*, J. Ind. Chem. Soc., **2016**, 93, 1351-1355, ISSN 0019-4522.
- iii) Pradyut Sarma, *Kinetic study of interaction of orthoamino phenol with Fe(III) Schiff Base complex in aqueous surfactant medium.*, Asian J. Chemistry, **2015**, 27, 325-328, ISSN 0970-7077.
- iv) Pradyut Sarma, Prabin K. Baruah and Okhil K. Medhi, *Spectrophotometric determination of the stability constant of Iron Schiff base with cyanide ligand in aqueous micellar medium*, J. Ind. Chem. Soc., **2014**, 91, 1041-1046, ISSN 0019-4522.
- v) Pradyut Sarma and Okhil K. Medhi, *Interaction of Fe-Schiff base complex with o-amino phenol in aqueous surfactant micelle-an electrochemical and spectroscopic analysis*, J. Ind. Chem. Soc., **2014**, 91, 1210-1222, ISSN 0019-4522.

- vi) Prabin K. Baruah, Pradyut Sarma, Sontora Baruah and Okhil K. Medhi, *Exfoliation of graphene oxide nanosheets from pencil lead and in situ preparation of gold nanoparticles on graphene oxide nanosheet*, Int. J. Nano Sci., **2014**, 12(5), 1350034(1-7), ISSN 0219-581X.
- vii) Prabin K. Baruah, Sontara K. Baruah Pradyut Sarma and Okhil. K. Medhi, *Green synthesis of gold nanoparticles using camellia sinensis and kinetics of the reaction*, Adv. Mat. Lett. **2012**, 3(6), 481-486. ISSN 09763961, 0976397X.
- viii) Pradyut Sarma, Prabin K. Baruah and Okhil K. Medhi, *Electrochemical and electron paramagnetic resonance evidence for semiquinone radical in the cleavage of catechol by Schiff base complex of Ru(III) in aqueous surfactant micelle.*, Int. J. Chem. Res., **2011**, 2(2), 35-39, ISSN 0976-5689.
- ix) Pradyut Sarma and Okhil K. Medhi, *Electrochemical study of interaction of 3,5-ditertiarybutyl catechol with Fe(III) complexes of N-salicylidene-L-amino acids*, Curr. Res. Chem., **2011**, 3(2), 187-97, ISSN 1996-5052.
- x) Pradyut Sarma and Okhil K. Medhi, *Spectroscopic and Electrochemical analysis of Interaction of DBCH₂ with Iron(III) complexes of N-Salicylidene – L-amino Acids in aqueous surfactant micelle medium*, J. Surface Sci. technol. **2011**, 27(2), 135-146, ISSN 09701893.

Papers

presented in
Seminar/
Conference

No. Of International Seminar: 04

- i) Study of $[M(\text{cat})_3]^{n-}$ ($M = \text{Fe}^{3+}, \text{Cu}^{2+}, \text{Mn}^{2+}$ etc) complexes in aqueous surfactant medium with the help of spectroscopic and electrochemical analysis. Deptt. Of Chemistry G. B. College Bhagalpur. DST, New Delhi CSIR, New Delhi UGC, New Delhi Institution of Chemists.
- ii) Reaction of phenolate substrate with ferric Schiff base complexes in aqueous surfactant medium – kinetic study. Deptt. of Chemistry, JECRC University, Jaipur. DST, New Delhi CSIR, New Delhi UGC, New Delhi Institution of Chemists.
- iii) “Spectroscopic and electrochemical study of dioxygenase enzyme catalyzed reaction in aqueous surfactant micelle”. Annamalai University, Chidambaram. ISCA, Kolkata.
- iv) “Spectroscopic and electrochemical studies of Fe(III) complexes of Tetradentate Schiff base encapsulated in aq. surfactant.” Department of Chemistry, IIT Delhi, India. AICTE, New Delhi SCI, USA DST, New Delhi CSIR, New Delhi ALFA AESAR UK IIT, Delhi.

No. Of National Seminar:

- i) Photodegradation of water soluble azo dye in a UV process comparison with solar photo-Fenton Treatment. Deptt. Of Chemistry Arya Vidyapeeth College DBT, New Delhi.
- ii) Spectroscopic and electrochemical analysis of metal trischelate complexes in aqueous surfactant medium. Deptt. Of Chemistry, UT University, Gujarat. DST, New Delhi CSIR, New Delhi UGC, New Delhi Institution of Chemists.
- iii) Kinetic study of the interaction of phenolate substrates with ferric complexes encapsulated in aqueous surfactant medium. Deptt. Of Applied Science, NITTTR, Bhopal, MP. DST, New Delhi CSIR, New Delhi UGC, New Delhi Institution of Chemists.
- iv) "Synthesis, structure and properties of cetyltrimethylammonium triiodide". IICT, Hyderabad. IICT, Hyderabad.
- v) "Interaction of Iron Schiff base complexes with phenolate ligands encapsulated in aqueous surfactant micelles- spectroscopic and electrochemical analysis." Deptt. of Chemistry Assam University. ISSST, Kolkata
- vi) "Spectroscopic and electrochemical studies of Fe(III) complexes of Tetradentate Schiff base encapsulated in aq. surfactant." Department of Chemistry, IIT Delhi, India. AICTE, New Delhi SCI, USA DST, New Delhi CSIR, New Delhi ALFA AESAR, UK IIT, Delhi.

Acted as	i) State Council of Education Research and Training (SCERT), Assam.
Resource	Govt. of Assam. National, April – May 2020
person/ chaired	ii) Department of Chemistry, Arya Vidyapeeth College. DBT, New Delhi
technical	National, October, 16-25/ 2019
Session	iii) Department of Chemistry, Arya Vidyapeeth College. DBT, New Delhi,
	National, September, 19-25/ 2019
Membership	i) Life member of Assam Science Society.
in reputed	ii) Life member of Indian Chemical Society of India (National level).
national/	iii) Life member of Indian society for surface science and technology (Nation
international	level).
agency	

- Corporate
Social
responsibility
1. Nodal officer for The Department of Environmental studies since 2017
 2. Convener of College Purchasing Committee since 2017.
 3. Convener of Pandal Committee of Arya Book Fair in the session 2020-21.
 4. Convener of DBT sponsored Training Program on salt analysis in the session 2020-21.
 5. A member of College Development Committee in the session 2020-21.
 6. Auditor of College Alumni Association since 2016.
 7. Convener of Pandal Committee of Golden Jubilee Celebration in the session 2018-19.
 8. Returning officer of the Election of AVCSU for the session 2016-17
 9. A member of College Construction Committee since 2017
 10. Assistant returning Officer of the Election of AVCSU for the session 2015-16.
 11. A member of examination branch for the session 2014-2015 and 2016-17.
 12. Member of the Hostel development committee 2014-2015.
 13. A member of remedial classes for the session 2013-2015.
 14. A member of invitation committee of Giridhar Sarma Memorial Lecture in the session 2012-15.
 15. Teacher in charge of Minor Games in the Arya Vidyapeeth College Student Union Body for the session 2001-2005.
 16. A member of Admission Committee since 2000.
