

BRIEF PROFILE



Dr. (Mrs.) ANUPAMA ASTHANA
Professor and Head,
Department of Chemistry (DST-FIST sponsored),
Govt. VYT PG Autonomous College (College with Potential of Excellence),
Durg, Chhattisgarh, India

Personal Profile

Date of Birth : 9.11.1962
Nationality : Indian
Contact Address : Lily-222, Talpuri (A-Block), Bhilai – 490009, Durg (CG), India.
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Qualification

B.Sc.: 1981
M.Sc.: 1983
Ph.D.: 2003, Chemistry, Pt. Ravishankar Shukla University, Raipur(CG)

Experience

Teaching : 38Years

- Joined at PG College, Dhamtari in 1983
- As Assistant Professor-
1985 to 1990 at Govt. DB Girls PG College, Raipur.
1990 to 2008 at Govt. VYT PG Autonomous College,
Durg.
- As Professor & Head at Govt. VYT PG Autonomous
College, Durg, from 2008 till date.

Research :

Awarded Ph.D. in Chemistry in the year 2003.

- Thesis Topic : Methods of Analysis of Organic Pollutants and Pesticides.
- Registered Ph.D. guide at Pt. Ravi Shankar Shukla University, Raipur (CG)
- Thrust Area -
 - Analytical and Environmental Chemistry
 - Adsorption Techniques, Chemical Kinetics
- **Ph.D. supervision-**

Awarded	03
Registered	05
- **Research Projects:** - Kinetic and thermodynamic studies of adsorption of some toxic metal ions by using nanoparticles entrapped adsorbents (UGC), 2016.
 - Radiation induced modification of Chitosan for absorptive removal of organic textile dyes. – **Co investigator** (BARC), 2019-2021.

Other Contributions

- Member Executive Council, Hemchand Yadav University, Durg, 2021
- Dean, Physical Sciences, Hemchand Yadav University, Durg, 2021.
- Member, Central Board of studies, Chhattisgarh.
- Member, Board of studies, Chemistry, Govt. Ambikapur PG College, Ambikapur (CG) 2020-21
- Member, Board of studies, Bio chemistry, Govt. Nagarjun PG Science College, Raipur, 2021.
- Member, Board of Studies, Chemistry, Govt DB Girls PG College, Raipur
- Member, Board of Studies, Chemistry, Govt. Yoganandan Chhattisgarh PG College, Raipur
- Fellow member, 'Indian Chemical Society'.
- Fellow Member of 'Indian Science Congress Association'.
- Reviewer and Subject Expert in various capacities.
- Delivered '**Invited Talks**' in various Institutes and Conferences.
- Book Chapter 1

Papers Published

1. Adsorption of cationic dyes, drugs and metal from aqueous solutions using a polymer composite of magnetic/ β -cyclodextrin/activated charcoal/Na alginate: Isotherm,

- kinetics and regeneration studies, *Journal of Hazardous Materials*, **409** (2021) 124840.
2. Chicken feathers derived materials for the removal of chromium from aqueous solutions: kinetics, isotherms, thermodynamics and regeneration studies, *Journal of Dispersion Science and Technology*, (2020).
 3. Synthesis, characterization and antibacterial activity of a graphene oxide based NiO and starch composite material, *Journal of Dispersion Science and Technology*, (2020).
 4. Intensified elimination of aqueous heavy metal ions using chickenfeathers chemically modified by a batch method, *Journal of Molecular Liquids*, **312** (2020) 113475.
 5. Degradation of Methylene blue and Methyl violet using Graphene oxide/NiO/ β – cyclodextrin nano composites as photo catalyst, *Int. J of Environmental Analytical Chemistry*, (2020) 1-19.
 6. Control of surface functionalization of Graphene metal oxide polymer nano composites prepared by a hydrothermal method, *Polymer Bulletin*, (2020) 1-19.
 7. Adsorption of heavy metal ions by low cost adsorbents: a review, *International Journal of Environmental Analytical Chemistry* (2020) 1-38.
 8. A micellar mediated novel method for the determination of selenium in environmental samples using a chromogenic reagent, *Analytical methods*, **12** Issue 35 (2020), 4327-4333.
 9. Cationic Dye Removal Using Novel Magnetic/Activated Charcoal/ β -Cyclodextrin/Alginate Polymer Nanocomposite, *Nanomaterials*, **10** (2020) 170.
 10. Kinetics and mechanistic study of oxidation of paracetamol: an accelerated catalytic approach, *SN Applied Sciences* **1** (11) (2019) 1380.
 11. Adsorption of hazardous chromium (VI) ions from aqueous solutions using modified sawdust: kinetics, isotherm and thermodynamic modeling, *International Journal of Environmental Analytical Chemistry* (2019) 1-18.
 12. Investigation of a thermoluminescence response and trapping parameters and theoretical model to explain concentration quenching for Yb³⁺-doped ZrO₂ phosphors under UV exposure, *Bulletin of Materials Science* **42** (5) (2019) 249.
 13. An arginine functionalized magnetic nano-sorbent for simultaneous removal of three metal ions from water samples, *RSC advances*, **7** (81) (2017) 51079-51089.

14. Novel glycine-functionalized magnetic nanoparticles entrapped calcium alginate beads for effective removal of lead, *Micro chemical Journal*, 130 (2017) 168-178 (in publication).
15. Glycine functionalized magnetic nanoparticle entrapped calcium alginate beads : a promising adsorbent for removal of Cu (II) ions, *Journal of Environmental Chemical Engineering*, 4 (2016) 1985-1995.
16. Development of surfactant assisted kinetic method for trace determination of thallium in environmental samples, *Micro chemical Journal*, 118 (2015) 150-157.
17. Determination of Dicofol in various environmental samples by spectrophotometric method, using chromogenic reagents, *Synthesis and reactivity in inorganic, metal, organic and non metal chemistry*, 45 (2015) 1199-(7).
18. Sensitive spectro photometric method for determination of some phenothiazine drugs, *Springer Research on Chemical Intermediates*, 1164 (2014) 1838-8.
19. A novel and sensitive kinetic method for the determination of malathion using chromogenic reagent, *Micro chemical Journal*, 113 (2014) 83-89.
20. A sensitive spectrophotometric determination of atrazine in micellar medium and its application in environmental samples, *Research on chemical Intermediates*, 39,6 (2013) 2867-2879.
21. Sensitive and selective methods for determination of antipsychotic drug olanzapine in pharmaceuticals, *Research on chemical Intermediates*, 39 (6) (2013) 2629-2640.
22. Photocatalytic degradation of an azodye with ZnO nanoparticles, *American Institute of Physics AIP conference proceedings*, (2013) 243-244.
23. Determination of nimesulide in pharmaceutical and biological samples by a spectrophotometric method assisted with the partial least square method, *Indian Journal of Pharmaceutical Science*, 201339/8 (2013) 3553-3563.
24. Spectrophotometric analysis of trichloroethylene in various environmental and biological samples, *Research on Chemical Intermediates*, 39,8 (2013)3867-3875.
25. Solid phase extractive Spectrophotometric determination of some sulfa drugs, *Asian Journal of Pharmaceutical and Clinical Research*, (2012) 5,2.
26. A Catalytic kinetic Spectrophotometric determination of organophosphorus pesticides in vegetable samples, *J.Braz.Chem. Society*, 23,2 (2012) 322-327.
27. Spectrophotometric determination of lumivudine in pharmaceutical products and biological Samples, *978-93*, (2011)1-5.

28. Kinetic spectrophotometric determination of methyl parathion in water and vegetable samples, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 101(2011) 54-58.
29. A spectrophotometric determination for the trace Amount of benzene in various environment samples, *Chem. Environ. Research*, (2008) 3&4.
30. Mandeep khol caves-A Classical site of karst Topography, Rajnandgav District, Chhattisgarh, India, *Ultra Science*, 19(1) (2007) 153-155.
31. Mandeep khol caves-Natures wonder in Rajnandgaon district of Chhattisgarh India, *J. Current Science*, 10(2) (2007) 757.
32. Study of Fluctuation of Ground Water level in Somni stream watershed, Patan Block, Durg District Chhattisgarh, *J. Current Science*, 9(1) (2006) 367-370.
33. Seasonal Variation in Ground Water Quality in Upper part Block, Durg District, Chhattisgarh, *Nature Environment and Pollution Technology*, 5(1) (2006) 111-117.
34. A Simple Spectrometric method for determination of Nicotine in environmental samples, *J. Chinese Chemical Society*, 51(2004) 949-953.
35. A Simple sensitive Spectro-photometric method for determination of dichlorvos in environmental samples, *Indian Journal of Chemical Technology*, 10 (2003) 96-98.
36. Determination of Thallium by starch Iodide method and its application in Environmental Samples, *J. Chinese. Chemical Society*, 50 (2003) 399-402.
37. Determination of carbon Disulphide in Enviromental samples using Leucorystal Violet, *Chemical Environmental Research*, 12 (2003) 2 & 3.
38. Simple and sensitive spectroscopic method for the determination of Benzene in environmental samples, *J. Indian Chemical Society*, 79 (2002) 633-634.
39. Thin layer chromatographic separation and determination of widely used Herbicide and related compounds via hydrolysis and oxidative coupling, *Chemical Environment Research*, 11 (2002) 1 & 2.
40. Determination of ethylene glycol in Environmental samples, *Chemical Environment Research*, 10 (2001)1 & 2.

Conferences/Seminar/Congress/Workshops Attended in various capacity

1. International Conference on Materials for Environment (ICME – 2020), Govt. VYT PG Autonomous College, Durg, 24-25 Jan. 2020
2. International Conference on Recent Trends in Chemical Sciences, Pt. R S University, Raipur, 14-16 Nov. 2019
3. New policy for NAAC Accreditation, one day Workshop, Govt. VYT PG Autonomous College, 27 Nov. 2019
4. 16th Chhattisgarh Young Scientist Congress-2018, Govt. VYT PG Autonomous College, 27-28 Feb. 2018
5. National Conference on Physics & Chemistry of Materials (NCPCM-2018), Devi Ahilya University, Indore, 27-28 Dec. 2018
6. International Conference on Multifunctional Advanced Materials ICMAM, Nagpur, 5-6 Oct. 2018
7. National Workshop on Emerging trends of chemicals in human life, Govt. Dr. WW Patankar Girls' PG College, Durg, 06 Feb. 2017.
8. International conference on futuristic materials and emerging trends in forensic and life science. RTM Nagpur, 5-7 Feb. 2015.
9. International conference on status of Science and Technology in Chhattisgarh state. BIT Durg, 19-20 March 2015.
10. National Seminar on Green Chemistry. Bhilai Mahila Mahavidyalaya, 28-29 Oct. 2015.
11. National seminar on Recent trends in material science. Govt. Naveen Girls College Raipur, 6 Aug. 2015.
12. National conference on recent trends in chemical science. Pt. Ravishankar Shukla University Raipur. 23-25 Jan. 2014.
13. National workshop awareness towards a holistic management of environment, Govt. Naveen Girls College Raipur. UGC Spon. 7-Aug. 2012.
14. Effect of pollutants on Global Health. Shri Shankaracharya College Bhilai. 11-12 Nov. 2011.
15. National Seminar on Emerging trends in chemical science. Kalyan PG. College Bhilai. 18-19 Nov. 2011.
16. National Seminar on recent trends in chemical sciences and future prospects. Govt. V.Y.T.PG.Auto. College Durg. 11-12, Oct. 2011.