BRIEF PROFILE OF THE FACULTY

Department of Chemistry

1. Name : DR. ALKA TIWARI
2. Designation : Professor
3. Educational Qualification : M.Sc., Ph. D.
4. Specialization in P.G. : Organic Chemistry
6. Details of Research Project : Completed two Minor Research Projects (UGC sponsored) & One

Major Research Project (BARC, BRNS sponsored)

S. No.	Project sanction No./ Amount sanctioned (Rs)	Title of project	Duration /Year (Completed /Ongoing)
1	4S-66/2006-07/MRP/CRO dt 12.12.2006 **Rs. 65000/-**	Removal of heavy metal ions from aq. Solution by adsorption onto Ca-alginate beads	(2006-08) completed
2	MS-44/202008/09-10/CRO dt 31.03.10 **Rs. 1,20,000/-**	Iron oxide encapsulated Chitosan microspheres as novel nano composite adsorbent for detoxification of water	(2010-12) completed
3	2010/37C/54/BRNS2535 dt 23.2.11, **Rs. 22 lacks**	Major research project by **BARC/ BRNS** Magnetic Nano particles loaded cation exchanger sorbents for effective removal of toxic metal ions	(2011-15) completed
4	MS42/202008/XII/13-14/CRO dt 1.7.2014 **Rs.4,20,000/-**	Pesticides removal from aq. Solutions by adsorption onto paramagnetic Styrene based co-polymers	(2014-16) ongoing

7. Email Address : alkatiwari18@yahoo.co.in
8. Teaching Experience : Years 33
9. Detail of Research (In Brief) : Field of Research
   - Polymer Chemistry
   - Environmental Chemistry
   - Drug delivery
10. Whether you are a recognized Supervisor for Ph.D. Guidance? Yes

    If yes, Give details
   - No. of candidates supervised for Ph. D. degree – 04 (awarded)
   - Candidates registered for Ph. D. Degree - 04

S.No.	Name of candidate	Topic	Year (Completed/Ongoing)
1.	Mrs. Tulika Dewangan	Removal of toxic metal ions by adsorption onto crosslinked sodium alginate and carboxymethyl cellulose microspheres.	Degree awarded March 2011
2.	Mrs. Anjali	Polymer and iron oxide nano composite microspheres	Degree awarded

	Soni	as novel adsorbents for the removal of organic toxicants	Oct., 2014
3.	Miss Chanchal Dhiwar	Iron oxide encapsulated Chitosan microspheres as novel nano composite adsorbent for detoxification of water.	Degree awarded Feb. 2015
4.	Mr. Neeraj Sharma	Application of Nano magnetite loaded Copolymeric hydrogels in the effective removal of Toxic metal ions from effluent water.	Degree awarded Feb. 2015
5.	Mrs. Prerna Kathane	Polyvinyl alcohol-alginate bound magnetite nano particles as adsorbent for detoxification of water	Submitted thesis
6.	Mrs. Barna Paul	Gold nano particles encapsulated alginate microspheres as adsorbent for removal of organic and inorganic toxicants from water	Ongoing
7.	Mrs.Anita Bind	Pesticides removal from aqueous solutions by adsorption onto Styrene based co-polymers	Ongoing
8.	Miss Archana	Synthesis and characterization of some biodegradable nano polymers and their application in Drug delivery	Ongoing

11. Details of publications: **(2011-16)**

Year	Title	Name of Journal/Book	ISSN No./ISBN No.	Volume/Edition
2016	**1.**Defluoridation of Water using an Effective Adsorbent PVA-Alginate/CTAB Bound Nano Magnetite microspheres: Kinetic & Equilibrium study	*Advance Physics Letter*:	ISSN (Print) 2349-1108, : 2349-1094, ISSN (Online)	Vol_3, Issue_2, 2016, 36-42
	2. Gold Nanoparticles Encapsulated Alginate Microspheres as an Adsorbent for the Separation of Mn (II) Ions from the Aqueous Solutions	*Advance Physics Letter*	ISSN (Print) : 2349-1094, ISSN (Online) : 2349-1108,	Vol_3, Issue_2, 2016, 30

2015	1.Nanomagnetite-loaded poly (acrylamide-co-Itaconic acid) hydrogel as adsorbent for effective removal of Mn^{2+} from contaminated water	*Desalination and Water Treatment*		*1-18, 2015, (online)*DOI:10.1080/19443994.2015.1004117
	2. Nano ZnO-loaded poly (acrylamide-co-Itaconic acid) hydrogel as adsorbent for effective removal of iron from contaminated water	*Desalination and Water Treatment*		*1-14, 2015, (online)* DOI: 10.1080/19443994.2015.1005158
2014	1.Kinetic and thermodynamic studies of Zn^{2+} adsorption onto super paramagnetic poly (styrene-co-acrylic acid) hydrogel	*Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal chem*		*Accepted, November, 2014*
	2. Effective removal of Cu^{2+} ions from aqueous solution in Fixed-bed micro column using nanomagnetite-loaded poly (acrylamide-co-maleic acid) hydrogel as adsorbent	*Desalination and Water Treatment*		*1-14, 2014, (online)* DOI: 10.1080/19443994.2014.991945
	3.Assessment of Pb^{2+} ions removal efficiency of nanomagnetite-loaded poly (acrylamide-co-acrylic acid) hydrogel in fixed-bed micro column from aqueous solution	*Desalination and Water Treatment*		*1-12, 2014, (online)* DOI: 10.1080/19443994.2014.987178
	4. Adsorption of pesticide (Captan) onto super paramagnetic poly (styrene-co-acrylic acid) hydrogel from aqueous solution using batch and column studies	*Analytical Chemistry Letters*		*4(4):267-278, 2014*
	5.Effective removal of pesticide (Dichlorvos) by adsorption onto super paramagnetic poly (styrene-co-acrylic acid)hydrogel from water	*International Research Journal of Environment Sciences*	ISSN 2319-1414	*3(11):44-46, 2014*
	6.Nano iron oxide loaded Poly (Acrylonitrile-co-Acrylic acid) hydrogel applied as novel adsorbent for effective removal of toxic Cd^{2+} ions using fixed-bed micro column technology	*Research Journal of Chemical Sciences*	ISSN 2231-606X	*4(9):88-100, 2014*

2013	1. Removal of Malachite green from aqueous solution using Nano Iron Oxide loaded alginate microspheres: Batch and Column Studies	*Research on Chemical Intermediates*		*2013, DOI:10.1007/s11164-012-1011-1*
	2. Kinetic and Thermodynamic Studies of Cd^{2+} adsorption onto Super paramagnetic nano iron oxide loaded Poly (Acrylamide-Co- Acrylic acid) Hydrogel	*Research on Chemical Intermediates*	2319-1414	*2013, DOI:10.1007/s11164-013-1330-X*
	3. Super paramagnetic PVA- Alginate Microspheres as Adsorbent for Cu^{2+} ions from Aqueous systems	*International Research Journal of Environment Sciences*		*2(7):44-53, 2013*
	4. Efficiency of Super paramagnetic Nano Iron Oxide loaded Poly (Acrylamide-Co- Acrylic acid) Hydrogel in up taking Cu^{2+} ions from water	*Journal of Dispersion Science and Technology*	ISSN Print 2229-7928	*34:1437-1446, 2013, DOI:10.1080/01932691.2012.743393*
	5. Adsorption of Hg^{2+} Poly(Acrylamide-Co- Acrylic acid) hydrogel: Kinetic and Thermodynamic Studies	*Analytical Chemistry Letters*	ISSN 0nline 2230-7532	*3(4):249-263, 2013, DOI:10.1080/22297928.2013.856149*
2012	1. Nanoparticles loaded alginate beads as potential adsorbent for removal of phenol from aqueous solution	*Synthesis and Reactivity in Inorganic, Metal-Organic and Nano-Metal Chemistry*	Print 1553-3174 Online 1553-3182	*42:1158-1166, 2012*
	2. Adsorption of Nitro phenol onto Nano iron oxide and alginate microsphere: Batch and Column Studies	*African Journal of pure and Applied Chemistry*	1996-0840	*6(2),2012, DOI: 10.5897/AJPAC11.0711(5):06-13, 2012*
	3. Efficiency of Super paramagnetic Nano Iron Oxide loaded Poly (Acrylamide-Co- Acrylic acid) Hydrogel in up taking Pb^{2+} ions from water	*International Research Journal of Environment Sciences*	2319-1414	*2012, DOI:10.1007/s11164-012-0812-6*
	4. Nano Iron Oxide Encapsulated Chitosan Microspheres as Novel Adsorbent for Removal of Ni (II) Ions from Aqueous Solution	*Research on Chemical Intermediates*	2989-3009	

2011	1.Removal of Chromium (VI) ions by adsorption onto binary biopolymeric beads of Sodium alginate and Carboxymethyl cellulose 2. Adsorption of Chromium onto composite microspheres of Chitosan and nano- iron oxide	*Journal of Dispersion Science and Technology* *Journal of Dispersion Science and Technology*	Print 0193-2691 Online 1532-2351 Print 0193-2691 Online 1532-2351	*32: 1075-1082, 2011* *32: 1661-1667, 2011*

12. Seminar/Symposia/Workshops attended (2011-16)

Year	Topic of workshop/Seminar/Symposia/Conference	Date	Paper present Yes/No	Whether participated as resource person
2016	1.National Level Workshop on Nano at Kalyan PG College, Bhilai Nagar. 2. International Conference on Recent Trends in Science and Engineering (ICRTSE) at Govt. V. Y. T. PG Autonomous College, Durg.	8th-9th January, 2016 15th-16th January, 2016	Attended Attended	…….. …….
2015	1. International Conference On Futuristic Materials and Emerging Trends in Forensic and Life Sciences 2. International Conference On Status of Science & Technology in Chhattisgarh State 3.National Seminar on Green ChemistrY	5th – 7th FEBRUARY 2015 19th - 20th MARCH 2015 28th - 29th OCT 2015	Attended Attended Attended	---- ---- ----
2014	National Conference On Recent Trends in Chemical Sciences	23th – 25th JANUARY	Attended	----
2013	National Workshop On Quality Enhancement through Innovations in Teaching, Learning, Evaluation and Implementation of Healthy Practices	8th – 9th FEBRUARY	Attended	-----
2012	1. National Seminar On Emerging Trends in Chemical Sciences 2.International Conference On Chemistry and Materials Prospects and Perspectives	19th NOV 2012 14th-16th DEC 2012	Attended Attended	------ ------
2011	1. National Seminar On Recent Trends in Chemical Sciences and Future Prospects 2. 1st International Science Congress	11th – 12th OCT 2011 24th – 25th DEC 2011	Attended YES	------ -----

13. Other Information (If any) : Life member of various associations

- Fellow and Life member : Indian Council of Chemists (ICC)
- Fellow and Life member : Indian Society of Surface Science & Technology (JSSST)
- Fellow and Life member : Journal of Indian Chemical Society (J Ind Chem Soc).
- Fellow and Life member : International Science Congress association (ISCA)
- Fellow and Life member : The Indian Science Congress Association (ISCA)