Curriculum Vitae

1. Name and full correspondence address : Dr. Krishna Kumar
Associate Professor
Department of Chemistry
School of Basic & Applied Science
Harcourt Butler Technical University
Kanpur-208002, Uttar Pradesh

2. Email(s) and contact number(s): : neerajrab@gmail.com; kkumar@hbtu.ac.in
+91-9454784859

3. Institution : Harcourt Butler Technical University
Kanpur

4. Date of Birth : 03-May-1986

5. Gender : Male (M)

6. Whether differently abled (Yes/No) : No

7. Academic Qualification:

S. No.	Degree	Year	Subject	University/Institute
1.	Master of Science	2010	Organic Chemistry	Banaras Hindu University, Varanasi
2.	Bachelor of Science	2008	Chemistry (Hons.)	Banaras Hindu University, Varanasi
3.	Intermediate	2004	English, Physics, Chemistry, Biology and Agriculture	Central Hindu Boys School, BHU, Varansi-221005, U.P.
4.	High School	2002	English, Science, Math, Social Science and Hindi	Kendriya Vidyalaya, Krishnanagar, Burdwan, West Bengal

8. Ph. D Detail's:

Thesis title	:	Synthesis, Characterization and Application of Water-Soluble Polymers Based on Acrylamide.
Guide's Name & Affiliation	:	Prof. S. Krishnamoorthi, Dept. of Chemistry, Institute of Science, BHU, Varanasi
University's Name	:	Banaras Hindu University, Varanasi, Uttar Pradesh, India
Year of Award	:	2014

9. Teaching experience (in chronological order).

S. No.	Positions Held	Department	Name of the Institute
1.	Post-Doctoral Fellow	School of Chemistry	University of Hyderabad
2.	Assistant Professor	Department of Chemistry and Environmental Science	Madan Mohan Malaviya University of Technology, Gorakhpur
3.	Associate Professor	Department of Chemistry	Harcourt Butler Technical University, Kanpur

10. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received

S. No.	Name of Award	Award Agency	Year
1.	SERB, TARE, New Delhi	SERB, New Delhi	2020
2.	SERB, Early Career Research Award, New Delhi	SERB, New Delhi	2016
3.	DR DS KOTHARI POST DOC. FELLOW	UGC, New Delhi, India	2015
4.	CSIR EXT. SRF FELLOWSHIP	CSIR, New Delhi, India	2015
5.	Senior Research Fellowship	CSIR, New Delhi, India	2012

6.	Junior Research Fellowship	CSIR, New Delhi, India	2010

11. Teaching Experience:

S. No.	Course	Discipline	Experience
1.	Undergraduate	B. Tech.	10 Years
2.	Postgraduate	M. Sc.	08 Years

12. Major Research Project:

1.	**Project title:**	**:**	Novel Smart Block Copolymers Owing Magnetic and Thermo-responsive Behaviour: Synthesis and Application in Solid/Liquid Separation.
	Funding Agency:	**:**	Early Career Research Award, Science and Research Engineering Research Board (SERB), New Delhi, India
	Research Grant:	**:**	Rs. 37.38 Lakhs (Completed)
	Status	**:**	Completed
2.	**Project title:**	**:**	Synthesis, Characterization and Application of Polymer-Enzymes Bioconjugates Based on Responsive Polymers
	Funding Agency:	**:**	Teacher Associateship Research Excellence Award, Science and Research Engineering Research Board (SERB), New Delhi, India
	Research Grant:	**:**	Rs. 18.30 Lakhs
	Status	**:**	Completed

13. List of Ph. D Students:

S. No.	Ph. D Student Details	Status	Supervisor (S)/ Co-Supervisor (CS)
1.	Ms. Kiran	Awarded	Dr. Krishna Kumar (S)
2.	Ms. Pooja Singh	Awarded	Dr. Krishna Kumar (JS)
3.	Mr. Vinai Kr. Singh	Awarded	Dr. Krishna Kumar (S)
4.	Ms. Shailaja Rai	Submitted	Dr. Krishna Kumar (S)
5.	Mr. Tarkeshwar Prasad	Ongoing	Dr. Krishna Kumar (S)
6.	Ms. Aradhna Chaudhary	Ongoing	Dr. Krishna Kumar (S)
7.	Ms. Puspha Suryabanshi	Ongoing	Dr. Krishna Kumar (S)
8.	Mr. Ravi Kumar	Ongoing	Dr. Krishna Kumar (S)

14. M.Sc. Dissertation.

S. No.	Name of Student	Title of Dissertation	Research Area	Mentor
1.	Ms. Nisha Yadav	Synthesis, Characterization and Application of pH responsive Hydrogel based on Polymer-Enzyme Bioconjugates.	Polymer Enzyme Bioconjugates	Dr. Krishna Kumar
2.	Ms. Aaradhna Chaudhary	Synthesis, Characterization and Application of Thermoresponsive Hydrogel based on Polymer-Enzyme Bioconjugates.	Polymer Enzyme Bioconjugates	Dr. Krishna Kumar
3.	Ms. Anuradha	Synthesis, Characterization and Application of Microgel based on CeO_2	Microgel	Dr. Krishna

	Yadav	nanoparticles.		Kumar
4.	Ms. Aaradhna Singh	Synthesis, Characterization and Application of Microgel based on SiO_2/CuO nanoparticles.	Microgel	Dr. Krishna Kumar
5.	Ms. Shweta Yadav	Synthesis, Characterization and Application of Microgel based on CeO_2/CuO nanoparticles.	Microgel	Dr. Krishna Kumar
6.	Mr. Surendra Kr. Jaiswal	Easy to make highly efficient photocatalyst stable platform for sp3C-CF3 generation and NADH regeneration under sunlight.	Artificial Photosynthesis	Dr. R. K. Yadav/ Dr. Krishna Kumar
7.	Ms. Anupriya Singh	Synthesis of Controlled Molecular Weight Polyacrylamide by using Sulphur in Free Radical Solution Polymerization Technique	Polymer Synthesis & Optimization	Dr. Krishna Kumar
8.	Mr. Danish Khan	Synthesis of Ultra-High Molecular Weight Star copolymer of Amphoteric Polyacrylamide for Wastewater Treatment and Environmental Aid	Flocculants	Dr. Krishna Kumar
9.	Mr. Devendra Kumar	Fabrication of Highly solvable Ultra-High Molecular Weight Amphoteric Polyacrylamide and its Application in Wastewater Treatment	Flocculants	Dr. Krishna Kumar
10.	Ms. Nisha Singh	Fabrication of NDCDs Hydrogel based on Chitosan Platform for Catalytic Reduction of Methylene Blue	Microgel	Dr. Krishna Kumar
11.	Ms. Poonam Yadav	Synthesis of pH-Responsive Bimetallic DMM@Fe_3O_4/MnO_2 and its Application in Wastewater Treatment	Microgel	Dr. Krishna Kumar
12.	Ms. Puja Singh	Insights of High Molecular Weight Polyacrylamide using Hexane /CCl_4 Pertaining to the Industrial World with Controlled Polymerisation	Polymer Synthesis & Optimization	Dr. Krishna Kumar
13.	Ms. Pushpa Suryabanshi	Fabrication of Chitosan@Fe_2O_3/Ag/Cu Nanocomposite for Catalytic Removal of Hazardous Pollutants from Wastewater	Microgel	Dr. Krishna Kumar
14.	Ms. Rituja Gupta	Synthesis of NDM@Fe_3O_4-MnO2Nanocomposite for Catalytic Removal of Dyes from Industrial Wastewater	Microgel	Dr. Krishna Kumar

15. Publications ***(List of papers published in SCI Journals)***

S. No.	Title	Authors	Journal	Volume/Page	Year
1.	Room temperature polymerization of vinylic monomers by azo initiator	Krishna Kumar et. al	*Journal of Applied Polymer Science*	129, 1882-1887	2012
2.	Synthesis, characterization and application of water soluble star polymers based on 2,4,6- trishydroxy methyl phenol and polyacrylamide	Krishna Kumar et. al	*Polymer International*	63, 1842-1849	2013
3.	Synthesis, characterization and application of novel cationic and amphoteric flocculants based on amylopectin	Krishna Kumar et. al	Carbohydrate polymers	127, 275-281,	2015
4.	Synthesis, characterization and in vitro drug release study of 3-arm poly-β-alanine	Krishna Kumar et. al	*Journal of Applied Polymer Science*	132, 42124	2015
5.	Dendrimer like star polymer based on β-cyclodextrin with ABC type miktoarms	Krishna Kumar et. al	RSC Advances	6, 41594-41607	2016
6.	Solution and Microwave Assisted Synthesis of β-Cyclodextrin Grafted Polyacrylamide: Water Treatment and In-vitro Drug Release Study	Krishna Kumar et. al	International Journal of Biological Macromolecules	1	2017
7.	Dendritic star polymer of polyacrylamide based on a β-cyclodextrin trimer: a flocculant and drug vehicle	Krishna Kumar et. al	New Journal of Chemistry	41 (2), 611-618	2017
8.	Heavy metals removal by three arm star polymer based on 2, 4, 6-tris hydroxymethyl phenol and polyacrylamide	Krishna Kumar et. al	Research Journal of Life Science and Bioinformatics, Pharmaceuticals and Chemical Sciences	3 (1), 45-57	2017
9.	Preparation of Ultra-High-Molecular-Weight Polyacrylamide by Vertical Solution Polymerization Technique	Krishna Kumar et. al	Polymer Engineering & Science,	--	2019
10.	Synthesis of cross-linker devoid novel hydrogels: Swelling behaviour and controlled urea release studies	Krishna Kumar et. al	Journal of Environmental Chemical Engineering	7 (4), 103162,	2019
11.	Synthesis of IONPs Decorated Graft Copolymers and Study of their Magnetic Force Induced Wastewater Treatment	Krishna Kumar et. al	Polymer for Advanced Technologies,	--	2019
12.	Synthesis of in-situ doped hydrazine-oxalyl chloride based polyamides and their ionic conductivity studies	Krishna Kumar et. al	Journal of Physics and Chemistry of	141, 109424	2020

			Solids		
13.	Synthesis, Characterization, and Flocculation Studies of β-Cyclodextrin-Based Stimuli-Responsive Star Copolymer: An Environmental Remediation	Krishna Kumar et. al	Global Challenges	1900089.	2020
14.	pH Tempted Micellization of β-Cyclodextrin based Diblock Copolymer and its Application in Solid/Liquid Separation	Krishna Kumar et. al	Journal of Polymer Research	DOI: 10.1007/s10965-020-02095-4.	2020
15.	Synthesis, Characterization of β-CD based Novel Hydrogels with Dual Idea of Drug Release and Dye Removal	Krishna Kumar et. al	Iranian Polymer Journal	--	2020
16.	Preparation, characterization and electrical properties of alkali metal ions doped co-polymers based on TBF	Krishna Kumar et. al	Materials Science & Engineering B	262, 114687	2020
17.	Vat Dye Safranin O- and Perylene-Based Conjugated Donor−Acceptor Polyimide as Sensitizer for Dye-Sensitized Solar Cells	Krishna Kumar et. al	Energy & Fuels	dx.doi.org/10.1021/acs.energyfuels.0c02299	2020
18.	Micellization of amphiphilic host–guest inclusion complexes of polymers based on β–cyclodextrin trimer and adamantane	Krishna Kumar et. al	Reactive and Functional Polymers	doi.org/10.1016/j.reactfunctpolym.2020.104771	2020
19.	Electrical properties of new polyazomethines	Krishna Kumar et. al	SN Applied Sciences	2, 1123	2020
20.	Ionic conductivity and dielectric properties of bulk SPP-PEG hydrogel as Na+ ion based SPE material for energy storage applications.	Krishna Kumar et. al	Materials Chemistry Frontiers.	DOI: 10.1039/D1QM00537E	. 2021
21.	Eosin-Y and sulfur-codoped g-C3N4 composite for photocatalytic applications: the regeneration of NADH/NADPH and the oxidation of sulfide to sulfoxide	Krishna Kumar et. al	Catalysis, Science and Technology	DOI https://doi.org/10.1039/D1CY00991E	2021
22.	Swift catalytic reduction of hazardous pollutants by new generation microgels	Krishna Kumar et. al	Soft Matter, RSC	18, 535-544	2021
23.	Single-Ion-Conducting SPP–SPA Blend Hydrogel-Based Pseudo-Solid Polymeric Electrolyte Material for Na+-Ion Constructed Energy Storage Devices		Energy & Fuels.	36, 12, 6459–6467	2022
24.	Newly designed acrylamide derivative-based pH-responsive hydrogel-urease bioconjugates: synthesis and catalytic urea hydrolysis.	Krishna Kumar et. al	Soft Matter	18(45), 8647-8655.	2022
25.	Ameliorated Microgel for Bimetallic Ag/CuO Nanoparticles and their Expeditious Catalytic Applications.	Krishna Kumar et. al	Iranian Polymer Journal	-	2023
26.	Enhancement of Urease Properties by Introducing New Interface based on pH responsive Polymer-Enzyme Bioconjugates via Grafting Through-RAFT Polymerization Technique	Krishna Kumar et. al	Material Chemistry and Physics	-	2023
27.	Quick Catalytic Responsive Chitosan Flakes@Ag/CuO Nanocomposites in Organic Synthesis and Environmental	Krishna Kumar et. al	Journal of Environmental and Chemical	-	2023

	Remediation		Engineering		
28.	HEMA/CHMA matrix based Hydrogel-Urease Bioconjugates and study their properties	Krishna Kumar et. al	International Journal of Biological Macromolecules	-	2023
29.	Fabrication of Cationic Microgels doped MnO2/Fe3O4 Nanocomposites, and Study of Their Photocatalytic Performance and Reusability in Organic Transformations	Krishna Kumar et. al	Polymer for Advanced Technologies	-	2024
30.	Ionic liquid supported Chitosan-g-SPA as a biopolymer-based single ion conducting solid polymer electrolyte for energy storage devices	Krishna Kumar et. al	International Journal of Biological Macromolecules	-	2024
31.	Fabrication of Low Cost Thermoresponsive Microgel@CuO Catalyst for Rapid Reduction of Methylene Blue Dye	Krishna Kumar et. al	Journal of Polymer Research	-	2024
32.	Role of Thermoresponsive Microgels in Recent Advancement of Drug Delivery Vehicles: A Review	Krishna Kumar et. al	Research Journal of Life Science and Bioinformatics, Pharmaceuticals and Chemical Sciences	DOI: 10.26479/2024.1005.03	2024
33.	Development of a Liquid Crystal-Based Sensor Utilizing EDTA-Cyclodextrin Polymer for Real Time Optical Detection of Methylene Blue in Natural Water Samples	Krishna Kumar et. al	Journal of Molecular Liquids	-	2024
34.	Emergence of ADM-mediated bioconjugate to enhance longevity and catalytic efficiency of urease	Krishna Kumar et. al	International Journal of Biological Macromolecules	Volume 296, March 2025, 139629 doi.org/10.1016/j.ijbiomac.2025.139629	2025
35.	Fabrication, characterization and flocculation properties of starch, chitosan or cellulose based graft copolymers: A review	Krishna Kumar et. al	Bioresource Technology Reports	29, 102023	2025

16. Research Interest: Polymer Synthesis, Polymer Characterization. Drug Delivery, Polymer-Enzyme Bioconjugates, Controlled Polymerization, Wastewater Treatment, Material Science, Nanoparticles, Chemical and Photocatalysis.

17. Subject Domain: My subject specialization is undergraduate and post graduate chemistry. In the subject I am comfortable with inorganic, Bioinorganic, Polymer, Organic, Molecular Spectroscopy and Material chemistry.

Krishna Kumar