

Sponsored Research Projects (Completed):

- Sonolytic Removal of Total Solids from Sewage Treatment Plant Using Low Cost Biosorbents at Dayalbagh, University Grants Commission, New Delhi

Research Publications:

Title	Journal	ISSN/ISBN No.
Synthesis of nickel nanorods and their conversion into nanoparticles Verma Devendra Kumar, Meena Jagram and Sudhir Kumar Verma	Research Journal of Chemistry and Environment Vol. 26 (12) December, 1-6, 2022	0972-0626
Carboxyl appended polymerized seed composite with controlled structural properties for enhanced heavy metal capture Sushmita Mahour, Sudhir Kumar Verma, Jyoti Kumar Arora, Shalini Srivastava	Separation and Purification Technology 284, 120247, 01 February, 2022	1383-5866
Synthesis and Characterization of Polyaniline/Carboxymethyl Guar Gum Biodegradable Conductive Nanocomposites Film Jagram Meena, Sudhir Kumar Verma, Rashmi Rameshwari and Devendra Kumar Verma	RASĀYAN Journal of Chemistry, Vol.15, No.2, 2022	0974-1496
Functionalized agro waste for toxic metal remediation from water bodies: A green pre-treatment process. Sushmita Mahour, Sudhir Kumar Verma, Shalini Srivastava	Material Today's: Proceeding 50 (3), 287-292, 2022 doi.org/10.1016/j.matpr.2021.06.330	2214-7853
Raw, activated and modified biosorbents for the speciation of C. I. Acid Red 2 from aqueous solutions: An adsorption study. Richa Sharma, Soami P. Satsangee and Sudhir Kumar Verma	International Journal of Water Resources and Environmental Engineering Vol. 13(1), pp. 1-19, January-March, 2021	2141-6613
Equilibrium, kinetic and mechanism studies on adsorption of textile disperse dye from aqueous solution onto TiO ₂ in the presence of ultrasound and rare earth ions. Pankaj, Richa Sharma and Sudhir Kumar Verma	Materials Today: Proceedings, Vol. 44 (1), 2158-2167, 2021	2214-7853
Hydroxychloroquine: Similarity Search and Structure-Based Virtual Screening for Identification of Potential Hits for Chemoprophylaxis against SARS-CoV-2 Shravan Kumar Paswan, Virendra Nath, Pritt Verma, Arun Pratap Sikarwar and Sudhir Kumar Verma	FABAD Journal of Pharmaceutical Sciences, 46, 2, 147-158, 2021	ISSN: 1300-4182 e-ISSN: 2651-4648
Separation of C. I. Acid Red 2 from aquatic	The Journal of Oriental	0022-3301

media onto raw, activated and modified mustard cake. Richa Sharma, Rajat Sengar, Devendra Kumar Verma and Sudhir Kumar Verma	Research Madras Vol. XCII-VII, 151-172, 2021	
Adsorption of C. I. ACID RED 2 from their aqueous solutions onto raw, activated and blended bagasse ash based biosorbents. Richa Sharma, Soami P. Satsangee and Sudhir Kumar Verma	Advances in Bioresearch Vol 11 (3), 91-103, May 2020 10.15515/abr.0976- 4585.11.3.91103	2277-1573
Effects of Acid Yellow 23 food dye on environment and its removal on various surfaces - A mini review. Richa Sharma, Simran Bamola and Sudhir Kumar Verma	International Research Journal of Engineering and Technology. 7(8), 4550- 4573, 2020	2395-0072
Isolation of sugarcane amino acids from aqueous solution by ARHA. Kaman Singh, Ram Bharose and Sudhir Kumar Verma	Materials Today: Proceedings, 26, 1037– 1045, 2020	2214-7853
Voltammetric study of multiwalled carbon nanotube modified screen printed carbon electrode for the determination of a phyto constituent wedelolactone. Sachin Saxena, Sudhir Kumar Verma and Soami P. Satsangee.	Materials Today, 2018. 5(3), Part-1, 9167–9172. Materials Today: Proceedings Journal Elsevier	2214-7853
Sonolytic removal of sugar colour in the presence of activated charcoal. Sudhir Kumar Verma, Devendra Kumar Verma and Sachin Saxena.	International Journal of Advance Research in Science and Engineering. Vol. 07, Issue 01, 2018, 368- 382.	2319-8354
Adsorption studies of the sugar Phenolic acids onto activated corn cob powder (ACCP). Sudhir Kumar Verma, Ram Bharose and Kaman Singh	International Journal of Engineering Technology Science and Research. Vol. 5, Issue 4, 2018, 467- 475.	2394-3386
One step synthesis of chemically active carbon from tea residue for adsorptive removal of TDS. Sana Ansari, Sudhir Kumar Verma, M. Shahnawaze Ansari and S. P. Satsangee.	International Journal of Research. Vol. 05, Issue 04, 2018, 2414-2427.	2348-6848 (online) 2348-795X (Print)
Activated Sugarcane Bagasse Ash (ASBA): Studies on its Properties for Adsorption of Sugar Colour. Divya Gautam, Sachin Saxena, Ajay Kumar and Sudhir Kumar Verma	International Journal of Applied Sciences and Technology, Vol.5, Issue No:3, 2017. 65-75.	2347-6281
A Review: Cane Sugar Colour and Colourants. Sudhir Kumar Verma and Ram Bharose.	The Indian Journal of Basic and Applied Research, vol. 1, Issue 1, 2016, 55-61.	2454-4639
Powdered Activated Mustard Cake (PAMC): Synthesis, Characterization and its Use for Aqueous Phase Adsorption of	Journal of the Indian Chemical Society, Vol. 91, 2014, 483-496.	0019-4522

Phenolics. Kaman Singh, Sudhir Kumar Verma and Ram Bharose.		
Potential of Powdered Activated Mustard Cake for Decolorising Raw Sugar. Kaman Singh, Ram Bharose, Sudhir Kumar Verma and Vimlesh Kumar Singh.	Journal of the Science of Food and Agriculture. (Willy). Vol. 93, 2013, 157-165. https://doi.org/10.1002/jsfa.5744	00225142 E-1097-0010
Characterization of Modified Polypropylene Powder (Accurel) and its Use for Adsorption of Phenolics from Aqueous Solution. Kaman Singh, Vimlesh Kumar Singh, Sudhir Kumar Verma, Ram Bharose and Anita Suman.	Indian Journal of Chemical Technology, Vol. 20, 2013, 385-391.	0975-0991 (online) 0971-457X (print)
Application and Potential of Power Ultrasound (pus) in Sugar Manufacturing: A Non-Chemical Green Technology. Vimlesh Kumar Singh, Sudhir Kumar Verma, Bhuwan Chandra, Satya Prakash Gupta and Kaman Singh.	Journal of Pure and Applied Ultrasonics. Vol. 35, 2013, 137-140.	0256-4637
Sugar decolorization through selective adsorption onto functionalized Accurel micro porous hydrophobic polymeric support. Kaman Singh, Ram Bharose, Vimlesh Kumar Singh and Sudhir Kumar Verma.	Industrial & Engineering Chemistry Research (American Chemical Society). Vol. 50, 2011, 10074-10082. https://doi.org/10.1021/ie200501p	1520-5045
Use of conducting polymers in biosensors. Ved Kumar, Rahul Kumar, Sudhir Kumar Verma and Ram Bharose.	Lucknow Journal of Science, Vol. 8, No.1, 2011. 98-105.	0974-813X (Online) 0974-8121 (Print)
The use of ultrasound in sugar processing. Kaman Singh, Sudhir Kumar Verma and Vimlesh Kumar Singh.	Cooperative Sugar, 2010, 42, No. 2, 41-48.	0971-877X

Publications in Conference Proceedings/Book Chapters

Title	Proceeding/Book & Publisher	ISBN No.	Conference status
Ultrasonic-Assisted technique as a green method for the efficient removal of sugar colour from aqueous solution: A study of multivariate statistical assessment	Published in the United States of America by IGI Global, Hershey PA, USA	13:9798369 353202	International
Assessment of C.I. Acid Red 2 adsorption from aqueous solution by modified, activated, and raw water hyacinth as a low cost green adsorbent	Published in the United States of America by IGI Global, Hershey PA, USA	13:9798369 353202	International

Environmental and Health Impacts of Acid Yellow 23 Food Dye and its Isolation Techniques- A Review Richa Sharma Virendra Nath, Poonam Shukla and Sudhir Kumar Verma	Importance of soil chemistry, Soil Chemistry and Present Challenges, LAP LAMBERT Academic Publishing, 2023, 96-131.	978-620-5-63394-6. 2023	International
Kinetics and Isotherm analysis of C. I. ACID RED 2 Adsorption onto Modified, Activated and Raw Water Hyacinth as a Low-Cost Green Adsorbents Richa Sharma, Rajat Sengar, Devendra Kumar Verma, Abhay P. Srivastava and Sudhir Kumar Verma	Modern Approaches in Engineering, Science and Management, 2021, 172-191. Consortium eLearning Network Private Limited, India	978-81-952901-2-3	International
Ultrasonic Enhancement of the Removal of Sugar Colour from Aqueous Solutions Using Activated Charcoal: A Study of Multivariate Statistical Analysis Rajat Sengar, Richa Sharma, Abhay P. Srivastava and Sudhir Kumar Verma	Modern Approaches in Engineering, Science and Management, 2021, 117-136. Consortium eLearning Network Private Limited, India	978-81-952901-2-3	International
Effective Removal of Sugar Amino Acids onto Activated Wheat Husk and its Comparison with Commercial Activated Charcoal. Kaman Singh, Ram Bharose and Sudhir Kumar Verma	Green Technology: A Roadmap for Sustainable Development – 2020, 101-122. Published by :Rishikul Prakashan, Prayagraj – 211002	978-81-951541-1-1	National
Case Study: River bank filtration system on the banks of river Yamuna in Dayalbagh, Agra Sachin Saxena, Sudhir Kumar Verma, V. Soamidas	Green Technology: A Roadmap for Sustainable Development – 2020, 143-150. Published by Rishikul Prakashan, Prayagraj – 211002	978-81-951541-1-1 Dr Poonam Shukla	National
Effects of Food Red 17 Dye on Health and the Environment: A Review based on Separation Techniques with Mechanism. Richa Sharma, Rajat Sengar, Virendra Nath and Sudhir Kumar Verma	Green Technology: A Roadmap for Sustainable Development – 2020 Published by Rishikul Prakashan, Prayagraj – 211002	978-81-951541-1-1	National
Potential of Abelmoschus Esculentus Seed Cake Based natural Coagulant for Wastewater Treatment. Richa Sharma, Rachana Singh, Soami	Climate Change: Issues and Challenges. 2020, 158-170.	978-81-928754-6-0	National

P. Satsangee and Sudhir Kumar Verma			
Changing Climate and its impact on Developing Countries Sudhir Kumar Verma and Aparna Satsangi	Global Conference on the Control of Greenhouse Gases at the Source by Physical and Chemical Technology. Excel India Publishers, 91 A, Ground Floor, Pratik Market, Munirka, New Delhi, April 2019, 191-196	978-93-88237-65-9	International
Characterization of Activated Bagasse Fly Ash (ABFA) For Sugar Decolorization. Ram Bharose, Sudhir Kumar Verma and Kaman Singh	Global Conference on the Control of Greenhouse Gases at the Source by Physical and Chemical Technology. 91 A, Ground Floor, Pratik Market, Munirka, New Delhi, April 2019, 181-190	978-93-88237-65-9	International
Potential of agricultural waste biomass-based nanomaterials to enhancing route for dyes removal - A review. Richa Sharma, Sachin Saxena, Soami P. Satsangee and Sudhir Kumar Verma	Bioprospecting and Bioactive Compounds from Microbes and Plants, 2019, 63-89.	978-93-81778-71-5	National
Effective Removal of Cane -Phenolics onto Activated Rice Husk Ash (ARHA). Kaman Singh, Ram Bharose and Sudhir Kumar Verma	Advances in Functional and Biological Materials (ISAFBM-2019) (2019), 89-99.	978-93-5351-824-0	International
Potential of nanomaterial-based adsorbents: preparation and application for dyes removal - A review. Richa Sharma, Sachin Saxena, Soami P. Satsangee and Sudhir Kumar Verma	Emerging Trends in Education for Sustainable Future. (2019), 107-116. Gagandeep Publications, Delhi, India	978-93-86865-69-7	National
Adsorptive surface studies based on Leucaena Leucocephala seed powder and their effects on raw sugar decolourization. Manju Srivastava, Nishoo Singh, Sachin Saxena and Sudhir Kumar Verma	Emerging Trends in Education for Sustainable Future. (2019), 122-142. Gagandeep Publications, Delhi, India	978-93-86865-69-7	National
Preparation, characterization and environmental application of silver	Emerging Trends in Education for	978-93-86865-69-7	National

nanoparticles for the adsorption of poly aromatic hydrocarbons. Anita Lakhani, Manish Singh Sengar and Sudhir Kumar Verma	Sustainable Future. (2019), 10-32. Gagandeep Publications, Delhi, India		
Adsorption studies of the sugar amino acids onto activated corn cobs powder (ACCP). Sudhir Kumar Verma, Ram Bharose and Kaman Singh.	Sustainable Solutions in Industrial Pollution, Water and Wastewater Treatment. Excel India Publishers, New Delhi, India, (2018). 363-366.	978-93-88237-19-2	International
Sonolytic removal of sugar colour in the presence of activated charcoal. Sudhir Kumar Verma, Devendra Kumar Verma and Sachin Saxena.	Recent Innovations in Science and Engineering (ICRISE-2018). 266-280	978-93-87793-15-6	International
Adsorption studies of the sugar phenolic acids onto activated corn cob powder (ACCP). Sudhir Kumar Verma, Ram Bharose and Kaman Singh.	Emerging Trends in Science and Technology (ICETST-2018). 572-580.	978-93-87433-20-5	International
Characterization of activated bagasse fly ash (ABFA) for adsorption of sugar amino acids. Sudhir Kumar Verma, Ram Bharose and Kaman Singh.	Design, Materials & Manufacturing Concerns in Production of Quality Engineering Good. Excel India Publishers, New Delhi, India, 2017. 169-175.	978-93-86256-70-6	International
Sugar Decolorization through activated carbon made from agricultural by-product based waste material. Sudhir Kumar Verma, Sana Ansari, Harsha Devnani, and Sachin Saxena.	IEEE Region 10 Humanitarian Technology - 2016, 1-5.	Electronic - 978-1-5090-4177-0 Print - 978-1-5090-4178-7.	International
Agricultural by-product based carbon paste sensor for the trace determination of heavy metals Pb and Cd by adsorptive stripping voltammetry. Harsha Devnani, Sachin Saxena, Sudhir Kumar Verma and Swami P. Satsangee	IEEE Region 10 Humanitarian Technology - 2016. 1-5.	Electronic - 978-1-5090-4177-0 Print - 978-1-5090-4178-7.	International
Chemical characterization of depositing materials onto building surfaces. RanjitKumar, Sudhir Kumar Verma and K. Maharaj Kumari.	Recent Advances in Chemical and Materials Science. (NCRACMS-2015). Victorious Publishers, Delhi, India, 124-128.	978-93-84224-25-7	National

Synthesis and characterization of aluminium modified corn cob powder (Al-CCP) as a decolorizing agent. Ram Bharose, Sudhir Kumar Verma and Kaman Singh.	Handbook of Management, Technology and Social Sciences. R. S. Printers, Greater Noida, Uttar Pradesh, India. 2014. 63-73.	978-81-928926-3-4	International
Removal of phenolics acids from their aqueous solutions by adsorption onto activated wheat husk (AWH). Sudhir Kumar Verma, A. P. Srivastava, B. K. Pandey and A. K. Pandey.	Proceeding of Materials Science and Technology. Victorious Publishers (India), Delhi, India. 2014. 23-31.	978-9384224-01-1	National
Theoretical prediction of gruniesen parameter for MgB_2 . B. K. Pandey, A. K. Pandey, C. K. Singh and Sudhir Kumar Verma	Proc. of Materials Science and Technology. Victorious Publishers (India), Delhi, India. 2014. 13-16	978-9384224-01-1	National
Brassica cake carbon (bcc) as the potential substitute for commercial carbons used in sugar decolorization. Kaman Singh, Sudhir Kumar Verma, Ram Bharose and Vimallesh Kumar Singh.	Proc. of 10 th Joint Conv. of STAI and DSTA. Publisher: The Sugar Technologists Association of India. 2011, 3-17.	818587168 X	National
Application and potential of ultrasonic technology in sugar processing. Kaman Singh, Sudhir Kumar Verma and Vimallesh Kumar Singh.	Proc. Sugar Tech. Assoc. of India And SISTA. Publisher: The Sugar Technologists Association of India 2010, 9, 71-75.	81-85871-65-5.	National

Awards & Patents:

- Received “*Certificate of Excellence in Reviewing*” from Asian Journal of Chemical Sciences.
- Best poster awarded in *International Conference* and Humboldt kolleg on Recent Aspects of Organic/Organometallic Compounds and their Usefulness in Materials and Industries. Organized by Department of Chemistry, University of Lucknow, Lucknow, India, January 03-06, 2012.
- First prize received in poster presentation on Environment Competitions as part of the World Environment Day Celebrations, Organized by Department of Chemistry, University of Lucknow in Association with *UNESCO*. June 5-20, 2012.
- First prize awarded in the on-the-spot-essay competition. Theme of the event “Green Economy: Does it Include You?” World Environment Day Celebrations, Organized by Department of Chemistry, University of Lucknow in Association with *UNESCO*. June 5-20, 2012.
- Consolation prize in power point presentation on Environment Competitions as part of the World Environment Day Celebrations, Organized by Department of Chemistry, University of

Lucknow in Association with *UNESCO*. June 5-20, 2012.

Patents:

- Invention Entitled - "De-oilse mustard cake-based adsorbent and process thereof"
Patent No. – 324671 (24 April 2014)
Indian Patent Application No. 1266/DEL/2012. (Kaman Singh, *Sudhir Kumar Verma*, Ram Bharose and Vimlesh Kumar Singh)
Sponsoring Agency- Intellectual Property in India (Government of India).