

Ashok Kumar Nadda, Ph.D. *[Nanobiocatalysis](#), [Bioenergy](#), [Biomass](#), [CO₂ conversion](#) [Biopolymers](#)*

First & Last Name **Ashok Kumar Nadda**

Corresponding address Department of Biotechnology and Bioinformatics,
Jaypee University of Information Technology,
Waknaghat, Himachal Pradesh India

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Mobile: +919805806736

DOB: April 1, 1985

Nationality: Indian
Spouse: Swati Sharma



SUMMARY OF QUALIFICATIONS:

Listed in Top 2% scientist in world scientist ranking in Stanford University list

- Strong ability to write research projects and keen to generate research grants from national and international funding organizations.
- Strong inter personal skills and collaborators in, Denmark, Sweden, Lithuania, Belgium, Finland, Estonia, South Korea, Taiwan, China, Netherland, and Malaysia.

Research Areas

Microbial Biotechnology/Biocatalysis/Biopolymers/Bioenergy, CO₂ conversion, clean technologies

Job experience

March 2021-onwards	Assistant Professor (Senior Grade), Department of Biotechnology and Bioinformatics, Jaypee University of Information Technology, Waknaghat, Himachal Pradesh India, 173-234
Dec 2017-March 2021	Assistant Professor (Grade II), Department of Biotechnology and Bioinformatics, Jaypee University of Information Technology, Waknaghat, Himachal Pradesh India, 173-234
March 2017-Dec2017	Assistant Professor (Brain Pool-KU), Department of Chemical Engineering, Konkuk University, Seoul, Gwangjin-Gu, Seoul, Korea, 143701
March 2016- Feb 2017	Visiting Post-Doctoral research associate, Department of Chemical Engineering, Konkuk University, Seoul, Gwangjin-Gu, Seoul, Korea, 143-701.
June 2014-Mar 2016	Post Doctoral Fellow [Enzyme Molecular Engineering Lab] State Key Laboratory of Agricultural Microbiology, Huazhong Agricultural University, Wuhan, People's Republic of China.
Current position	Assistant Professor, (Senior Grade) Department of Biotechnology and Bioinformatics, Jaypee University of Information Technology, Waknaghat, Himachal Pradesh, India.
Area of interest	Biocatalysis, Environmental Biotechnology, Industrial Biotechnology

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Education

2013	Ph.D. (Biotechnology) Himachal Pradesh University, Shimla, India [Supervisor: Prof. S.S. Kanwar] Ph.D. Thesis title: "Purification and characterization of a solvent-tolerant thermophilic bacterial lipase and its applications in ester syntheses".
2008	M.Sc. (Microbiology), Jiwaji University, Gwalior, India, Percentage-80.92%
2006	B.Sc. (Medical) with Botany, Zoology, and Chemistry Himachal Pradesh University, Shimla, India, Percentage- 72.03%

RESEARCH EXPERIENCE

02/2009 to 02/2012	Department of Biotechnology, Himachal Pradesh University, Summer Hill, Shimla. Project title: "Lipase-catalyzed the synthesis of medically important esters of ferulic acid"
2012- June2014	Senior Research Fellow, Department of Biotechnology, Himachal Pradesh University, Summer Hill, Shimla. Project title: "Synthesis of antioxidant esters by lipase catalysis and evaluation of their free radical scavenging potential"

Awards and Fellowships

- Major Research Project (UGC-MRP) fellowship by University Grant Commission, New Delhi India from February 2nd, 2009 to 1st February 2012.
- Research fellowship under UGC-SAP DRS-1 scheme by University Grant Commission, New Delhi, India (Not availed).
- Senior Research Fellowship (ICMR-SRF) by Indian Council of Medical Research, New Delhi India.

Editorship and Reviewer

Editorial Board Member: Biomed Research International, Biochar, Carbon Research, Frontier in Biotechnology and Bioengineering, Journal of Technology Innovations in Renewable Energy

Guest Editor: Environmental Pollution, Environment Science and Pollution Research, Journal of Chemical Technology and Biotechnology Wiley, Polymers, Journal of Thermal Science, Frontiers in Nanotechnology, Frontiers in Genetics

Reviewers: 20+ SCI Journals

Grants and projects

1. As Principal investigator (PI) A project entitled, "*Extraction of keratin from poultry waste biomass of and its application in the production of value added products*" **Project grant No. Env. S&T F/5-1/ 2020- 2106 funded by (DEST) Department of Environment, Science & Technology Govt of Himachal Pradesh, India Total cost 7.6 lacs**
2. As Co-Principal investigator (Co-PI) of a project entitled, **Synthesis and characterization of ethosomes as an effective carrier of transdermal delivery of antifungal agents** Project grant number CRG/2022/005837 funded by Science & Engineering Research Board (SERB) Govt of India. Total cost 32 lacs
3. **As** Principal investigator (PI) A project entitled, "*CO₂-phillic nanotextured surface for enhanced cultivation of microalgae using immobilized carbonic anhydrase*" **funded by** Himachal Pradesh Council for Science, Technology & Environment (HIMCOSTE) **Govt of Himachal Pradesh, Total cost 6.8 lacs**

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20 + Projects submitted to different funding agencies and currently 4 projects under review

Major Invited talks/Guest lectures at international forums

1. Dr. Ashok Kumar has been invited for oral presentation in Royal society of Chemistry and British council co-sponsored UK-India Interdisciplinary Workshop on Advanced Biomaterials and Biosensors (ABB-2018) at IIT Ropar Punjab India, 13th - 15th November, 2018.
2. Dr. Ashok Kumar Nadda was invited for oral presentation at a one day seminar at school of Chemistry Indian Institute of Technology, Mandi Himachal Pradesh India, 9th April, 2018.
3. Dr. Ashok Kumar Nadda was invited for oral talk at International conference on Bioprocesses for sustainable environment and energy NIT Rourkela, Orissa. March 2020.
4. Dr. Ashok Kumar Nadda, Assistant Professor (SG) from the Department of BT & BI delivered a lecture on "Nanotextured materials for enzyme immobilization and nanobiocatalysis in 13th International Conference on Protein Stabilization" (PROTSTAB-2021) organized by European Society of Applied Biocatalysis(ESAB) Bulgaria, on 9th October 2021.
5. Dr. Ashok Kumar Nadda, Assistant Professor (SG) from the Department of BT & BI delivered a lecture on "Emerging trends in nano-biocatalysis for environmental remediation and carbon dioxide capture" in 5th International Conference on Global Sustainability and Chemical Engineering (ICGSCE) 2021 organized by the School of Chemical engineering, College of Engineering, University Teknologi Mara 40450 Sha Alam, Selangor, Malaysia on 14th Sep 2021.
6. Dr. Ashok Nadda from JUIT delivered a keynote talk on topic, "Nanomaterials for enzyme immobilization and biocatalysis for clean energy and green environment" World Congress on Applied Nanotechnology (W-CAN)", which will be organized by Atatürk University, Nanoscience and Nanoengineering Application and Research Center between 24-26 November 2021.

Events organized as convenor/ organizing secretary

- 1. **Conference(s) organized:** Organising Convener of *International Conference on Recent Trends in Biotechnology and Bioinformatics ICBAB - 2019* held at Jaypee University of Information Technology, Waknaghat, Solan Himachal, India from August 01 - 03, 2019.
 2. Conference organized: Convenor of a virtual international conference on technologies for environmental sustainability and smart agriculture 2020, held at Jaypee University of Information Technology, Waknaghat, Solan Himachal, India from September 18-19 2020.
 3. Convenor of a virtual International Conference on Renewable Energy for Sustainable Environment organized by CSTERD from Department of BT & BI in JUIT on online mode held on 23-24 November 2021

Other professional activities

Life membership of International Society for Research and Development (ISRDI) London membership id F3140900303 from July 2016 to onwards.

Life membership of Association of Biotechnologists of Himachal Pradesh (Registration No. ABHI-LM026) from 2012 onwards

Life membership of Indian Science Congress from 2018 onwards

Annual membership of American Society of Microbiology (member ID. 57137119) from 2013-14

Life membership of Genetic Society of China From 2014 onwards.

Contributed to the syllabus development [Biotechnological Processes] for M.Sc. Environmental Science programme developed by Indra Gandhi National Open University, New Delhi India.

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Acting as Foreign relation officer at international office of JUIT
Acting as member of international collaboration centre at JUIT
Acting as faculty coordinator for JUIT youth club (Literary and debate club)
Acting as a member of research committees at department and university level

Contribution to literature/Science/Biotechnology

- Journal papers: **135 published**
 - Conference presentations/Abstracts: **80+**
 - Book chapters: **45**
 - Books/Books Edited: **28 books**
 - Citations (Google scholar): **4600+**
 - H index: **45**
 - i10 Index: **140**
 - Patents published : **4**
 - Plenary/Keynote/Invited Lectures/Seminars: **10 presentations**
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- Google Scholar: https://scholar.google.co.in/citations?hl=en&user=ZdQgyL0AAAAJ&view_op=list_works&sortby=pubdate
 - Research Gate: <https://www.researchgate.net/profile/Ashok-Nadda>;
 - Orcid id: <https://orcid.org/0000-0001-9192-0774>
 - Researcher id: <https://researchid.co/ashok.nadda09>

Thesis/Dissertations [Currently supervising/supervised:

**Ph.D. Thesis supervised: 2 completed [Dr. Anand Giri, currently working as NPDP at IIT Roorkee]
[Dr. Tanvi Sharma]**

M.Sc. Thesis: 4 completed; M.Tech :2

B.Tech. 18 completed

Ph.D.	M.Sc.	M. Tech	B. Tech Trainee/Intern	Visiting Researchers	Associates/postdocs
03	02	02	07	00	01

(Please read Ashok Kumar as Ashok Kumar Nadda)*

Patents:

1. Manisha Sharma, Kannu Priya, Jata Shankar, **Ashok Kumar Nadda**. Biodegradable fungal based bio-composite sheet (FBBS) for sustainable materials manufacturing. 202411039825. (Date of publication 7/06/2024).
2. Sanskriti Sauhta, Megha Mourya, **Ashok Kumar Nadda**. Biodegradable Keratin-Based Biocomposite for Dye Removal From Wastewater. 202411045713 (Date of publication 21/06/2024).
3. Piyush Kumar Kesharwani, Megha Mourya, **Ashok Kumar Nadda**. Biodegradable Biopolymeric Film Derived from Chicken Feathers for Sustainable Packaging. 202411050496 (Date of publication 12/07/2024).
4. Kriti Sharma, **Ashok Kumar Nadda**. Biodegradable composite sponge from microalgal biomass for green packaging and water treatment application. 202411055233 (Date of publication 9/08/2024).

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Books:

1. Biopolymer Conjugates Industrial Applications (2024) Swati Sharma, Ashok Kumar Nadda.(1st): De Gruyter. [ISBN : 9783110785838]
2. Microbes and Enzymes for Water Treatment and Remediation (2024) Ashok Kumar Nadda, Priya Banerjee, Swati Sharma, (1st) Boca Raton : CRC press. [ISBN : 9781003517238]
3. Nanotechnology in biofouling and Maritime management (2023) Ram Gupta, Ashok Kumar Nadda, Tuan Anh Nguyen, Swati Sharma, Md Bilal. January 2022, Elsevier, USA
4. Nanotechnology in bioprocess engineering (2023). Guillermo R. Castro, Ashok Kumar Nadda, Tuan Anh Nguyen, Swati Sharma, Md Bilal. January 2023, Elsevier, USA
5. Membranes for Water Treatment and Remediation (2023). Ashok Kumar Nadda, Priya Banerjee, Swati Sharma, and Phuong Nguyen-Tri, eds Springer Natu.
6. Microbes for Natural Food Additives (2023). Ashok Kumar Nadda, and Gunjan Goel, eds. Vol. 38. Springer Nature, 2023.
7. Advances in Nanotechnology for Smart Agriculture: Techniques and Applications (2023). Parul Chaudhary, Anuj Chaudhary, Ashok Kumar Nadda, Priyanka Khati, eds CRC Press
8. *Biopolymers: Challenges and oppurtunities.*Ashok Kumar Nadda, Swati Sharma, Rajeev Bhat.Springer Nature Publishing, Switzerland January 2022
9. *Bioelectrochemical Systems for Wastewater Management.* Maulin P. Shah, Ashok Kumar, AchleshDavery, Susana Rodríguez-Couto. October 2022, Elsevier, USA
10. *Biomass derived carbon materials for energy and environmental applications.* Mahima Khandelwal, Ashok Kumar Nadda, Susheel Kalia. December 2022, Elsevier, USA
11. *Microbes for natural food additives* (2022) Springer series on Microbes for sustainability. Editors; Ashok Kumar Nadda and Gunjan Goel. Springer Nature Publishing Singapore.
12. *CO₂-Philic Polymers, Nanocomposites and Solvents: Capture, Conversion and Industrial Products*, Editors: Ashok Kumar Nadda, Swati Sharma, Susheel Kalia March 2022, Elsevier, USA.
13. *Nanosensors for Smart Agriculture.* Editors: Adil Denizli, Tuan Anh Nguyen, Susai Rajendran, Ghulam Yasin, Ashok Kumar, March 2021,ISBN: 9780323852937 Elsevier, USA
14. *Biopolymeric Nanomaterials: Design, Synthesis And Applications.* Editors: Shamsher. S. Kanwar, Ashok Kumar, Tuan Anh Nguyen,Swati Sharma, Yassine Slimani May 2021 ,ISBN: 9780323853286 Elsevier, USA
15. *Microbial Exopolysaccharides as Novel And Significant BiomaterialsIsolation, Characterization And Applications In* Springer Series On Polymers And Composites' Editors: Ashok Kumar, K V Sajna, Swati Sharma, Springer Nature Publishing, Switzerland 2021 ISBN 978-3-030-75288-0, DOI; 10.1007/978-3-030-75289-7
16. *Recent Advances in Nanomaterials For Water Treatment And Remediation.* Srabanti Ghosh, Aziz Habibi-Yangjeh, Swati Sharma, Ashok Kumar. CRC Press/Taylor & Francis USA. November 2021.
17. *Nanomaterial for electrocatalysis*, Editors: T Maiyalagan, Mahima Khandelwal, Ashok Kumar, Tuan Anh, Ghulam Yasin October 2021, Elsevier, USA.
18. *Nanotechnology in the Paper and Pulp industry: Fundamentals And Applications.* Editors: Rajeev Bhat, Ashok Kumar, Tuan Anh Nguyen, Swati Sharma, August 2021, Elsevier, USA
19. *Plant Microbial interactions and smart agribiotechnology*, Swati Tyagi, Robin Kumar, Baljeet Saharan, Ashok Kumar Nadda, CRC Press/Taylor & Francis USA. ISBN 9781032100418; November 2021

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20. Lignin Biosynthesis and transformation into industrial products (2020) Springer Series on Polymer and Composite Materials Editors; Swati Sharma and Ashok Kumar. Springer Nature Publishing, Switzerland [ISBN].978-3-030-40663-9. <https://www.springer.com/gp/book/9783030406622>
21. Chemo-enzymatic systems for CO₂ utilization (2020). *CRC Press Taylor and Francis*. Editors; Swati Sharma and Ashok Kumar. Taylor and Francis USA, [ISBN] 9780367321932.
22. Advances in Probiotics for Sustainable Food and Medicine (2020).Springer series on Microbes for sustainability. Editors; Gunjan Goel and Ashok Kumar. Springer Nature Publishing Singapore.[ISBN] 9789811567957<https://www.springer.com/gp/book/9789811567940>
23. Nanomaterials for Bio-Catalysis, Editors: Guillermo R. Castro, Ashok Kumar, Tuan Anh Nguyen, Xianghui Qi, Ghulam Yasin, March 2021, ISBN: 9780128244371, Elsevier, USA
24. Smart Nanomaterials for Bioencapsulations, Editors: Guillermo R. Castro, Ashok Kumar, Tuan Anh Nguyen, Swati Sharma, Ram GuptaDecember 2021, ISBN: 9780323912297Elsevier, USA
25. *Advances in carbon capture and utilization* (2020) Springer series on energy and environment. Editors Deepak Pant, Ashok Kumar, K. K. Pant and Avinash Kumar Agarwal. Springer Nature Publishing, Singapore.10.1007/978-981-16-0638-0;[ISBN-978-981-16-0637-3].
26. Keratin as a Protein Biopolymer: Extraction from Waste Biomass and Applications (2019) Springer Series on Polymer and Composite Materials Editors; Swati Sharma and Ashok Kumar. Springer Nature Publishing, Switzerland [ISBN 978-3-030-02901-2]. <https://www.springer.com/gp/book/9783030029005>
27. Microbes and Enzymes in Soil Health and Bioremediation (2019). Springer series on Microbes for sustainability. Editors; Ashok Kumar and Swati Sharma. Springer Nature Publishing Singapore. <https://www.springer.com/gp/book/9789811391163>

❖ **Major Publications (10 selected publications with representative work)**

❖ **Selected publications**

1. Ashok Kumar, Gi Dae Park, Sanjay K.S. Patel, Sanath Kondaveeti, Sachin Otari, Muhammad Zahid Anwar, Vipin C. Kalia, Yogendra Singh, Sun Chang Kim, Byung-Kwan Cho, Jung-Hoon Sohn, Dong Rip Kim, Yun Chan Kang, Jung-Kul Lee (2019). SiO₂ microparticles with carbon nanotube derived mesopores as an efficient support for enzyme immobilization. *Chemical Engineering Journal*. doi.org/10.1016/j.cej.2018.11.052.
2. Ashok Kumar, Gaobing Wu, Zuo Wu and Ziduo Liu (2018). Improved catalytic properties of a Serine hydroxylmethyl transferase from *Idiomarina loihiensis* by site directed mutagenesis. *International Journal of Biological Macromolecules*. <https://doi.org/10.1016/j.ijbiomac.2018.05.003>.
3. Ashok Kumar, Gaobing Wu, Ziduo Liu (2018). Synthesis and characterization of cross-linked enzyme aggregates of serine hydroxyl methyltransferase from *Idiomarina loihiensis*. *International Journal of Biological Macromolecules*. DOI: doi:10.1016/j.ijbiomac.2018.04.106.
4. Ashok Kumar, Shaowei Zhang, Gaobing Wu, Cheng Chao Wu, Jun Peng Chen, Baskaran R, Ziduo Liu (2015). Cellulose binding domain assisted immobilization of lipase (GSlip-CBD) onto cellulosic nanogel: characterization and application in organic medium. *Colloids and Surfaces B: Biointerfaces*. 136, 1042–1050.
5. Ashok Kumar*, Alisa Gricajeva, Mikas, Sadauskas, Vilius Malunavicius, Hesam Kamyab, Swati Sharma, Tanvi Sharma, Deepak Pant (2019). Microbial lipolytic enzymes – promising energy-efficient biocatalysts in bioremediation. *Energy*. Accepted <https://doi.org/10.1016/j.energy.2019.116674>
6. Ashok Kumar and Shamsher Singh Kanwar (2011). Synthesis of ethyl ferulate in organic medium using celite-immobilized lipase. *Bioresource Technology*. 102, 2162-2167.

7. Ashok Kumar, Shamsheer S Kanwar, Kartik Dhar, Pankaj Kumar Arora (2016). Lipase catalysis in organic solvents: Advantages and applications. *Biological Procedures Online*.18:2, DOI 10.1186/s12575-0160033-2.
8. Tanvi Sharma, Swati Sharma, Hesam Kamyab and Ashok Kumar*(2020). Energizing the CO₂ utilization by Chemo-enzymatic approaches and potentiality of carbonic anhydrases: A review. *Journal of Cleaner Production*. 247, 119138 <https://doi.org/10.1016/j.jclepro.2019.119138>
9. Tanvi Sharma and Ashok Kumar* (2020). Bioprocess development for the efficient conversion of CO₂ into calcium carbonate using keratin microparticle immobilized *Corynebacterium flavescens*. *Process Biochemistry*, 100, 171-177.
10. Sanjay K. S. Patel; Raushan Singh; Ashok Kumar, Jae-Hoon Jeong; Sung-Hoon Jeong; Vipin C. Vipin C. Kalia; In-Won Kim; Jung-Kul Lee (2017). Biological methanol production by immobilized *Methylocellastrum* using simulated biohythane as a feed. *Bioresource Technology*. 241, 922-927.

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11. Ashok Kumar Nadda, Deblina Dutta, Anuj Kumar, Kriti Sharma, Pritam Kumar Panda, Debajyoti Kundu, Deepthi Yadav, Sunil Kumar, Su Shiung Lam (2023). Chemistry of CO₂-philic materials in enzyme-based hybrid interfacial systems: Implications, strategies and applications. *Fuel Processing Technology*, 250, p.107905.
12. Sunil Kumar, and Ashok Kumar Nadda (2023). Agri-food Waste as Environmental Pollutant: Root Causes, Challenges and Solution. *Environmental pollution (Barking, Essex: 1987)*, 122412.
13. Saloni Sachdeva, Rakesh Kumar, Prafulla Kumar Sahoo, Ashok Kumar Nadda (2023). Recent advances in biochar amendments for immobilization of heavy metals in an agricultural ecosystem: A systematic review. *Environmental Pollution*, 319 (2023), pp. 120937-120937, DOI: <https://doi.org/10.1016/j.envpol.2022.120937>
14. Anand Giri, Deepak Pant, Vimal Chandra Srivastava, Manoj Kumar, Ashok Kumar, and Meera Goswami (2023). Plant-microbe assisted emerging contaminants (ECs) removal and carbon cycling." *Bioresource Technology*, 129395.
15. Shreya Gupta, Swati Sharma, Amit Aich, Amit Kumar Verma, Prakash Bhuyar, Ashok Kumar Nadda, Sikandar I. Mulla, and Susheel Kalia (2023). Chicken feather waste hydrolysate as a potential biofertilizer for environmental sustainability in organic agriculture management. *Waste and Biomass Valorization*, 1-17.
16. G Bharath, Chao Liu, Fawzi Banat, Anuj Kumar, Abdul Hai, Ashok Kumar Nadda, Vijai Kumar Gupta, Mohammad Abu Haija, and Jayaraman Balamurugan (2023). Plasmonic Au nanoparticles anchored 2D WS₂@ RGO for high-performance photoelectrochemical nitrogen reduction to ammonia. *Chemical Engineering Journal*, 465, 143040.
17. Sutripto Majumder, Pooja Sharma, Surendra Pratap Singh, Ashok Kumar Nadda, Prafulla Kumar Sahoo, Changlei Xia, Swati Sharma, Rajiv Ganguly, Su Shiung Lam, and Ki Hyeon Kim (2023). Engineered biochar for the effective sorption and remediation of emerging pollutants in the environment." *Journal of Environmental Chemical Engineering*, 11(2), 109590.
18. Fazil Qureshi, Mohammad Yusuf, Mohd Arham Khan, Hussameldin Ibrahim, Bernard Chukwuemeka Ekeoma, Hesam Kamyab, Mohammed M. Rahman, Ashok Kumar Nadda, and Shreesivadasan Chelliapan (2023). A State-of-The-Art Review on the Latest trends in Hydrogen production, storage, and transportation techniques. *Fuel* 340, 127574.
19. Tanvi Sharma, and Ashok Kumar Nadda (2023). Protein inorganic hybrid nanoflowers of a microbial carbonic anhydrase as efficient tool for the conversion of CO₂ into value added product. *Journal of Chemical Technology & Biotechnology* 98(5), 1303-1311.
20. Thi Dung Le, Duc Thang Nguyen, Quynh Loan Nguyen, Viet Dung Duong, Thi Hai Yen Doan, Ashok Kumar Nadda, Swati Sharma, Thanh Son Le, Tien Duc Pham (2023). Adsorptive removal of dichlorophenoxyacetic acid (2,4-D) using novel nanoparticles based on cationic surfactant-coated titania nanoparticles. *Environmental Science and Pollution Research*, In Press (online), pp. 1-12, DOI: <https://doi.org/10.1007/s11356-023-25312-1>.

21. Vikas Menon, Swati Sharma, Shreya Gupta, Anujit Ghosal, Ashok Kumar Nadda, Rajan Jose, Pooja Sharma, Sunil Kumar, Pardeep Singh, Pankaj Raizada (2023). Prevalence and implications of microplastics in potable water system: An update. *Chemosphere*, 317 (), pp. 137848-, DOI: <https://doi.org/10.1016/j.chemosphere.2023.137848>
22. Sonam Tripathi, Diane Purchase, Ram Chandra, Ashok Kumar Nadda, Preeti Chaturvedi (2023). Emerging pollutants characterization, mitigation and toxicity assessment of sewage wastewater treatment plant- India: A case study. *Journal of Contaminant Hydrology*, 254 (2023), pp. 104139-, DOI: <https://doi.org/10.1016/j.jconhyd.2023.104139>.

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23. Kriti Sharma, Young-Kwon Park, Ashok Kumar Nadda*, Priya Banerjee, Pradeep Singh, Pankaj Raizada, Fawzi Banat, G. Bharath, Su Shiung Lam, (2022). Emerging chemo-biocatalytic routes for valorization of major greenhouse gases (GHG) into industrial products: A comprehensive review. *Journal of Industrial and Engineering Chemistry*. Accepted <https://doi.org/10.1016/j.jiec.2022.02.001>.
24. Tanvi Sharma, Changlei Xia, Abhishek Sharma, Pankaj Raizada, Pradeep Singh, Swati Sharma, Pooja Sharma, Sunil Kumar, Su Shiung Lam and Ashok Kumar Nadda* (2022) Mechano-chemical and biological energetics of immobilized enzymes onto functionalized polymers and their applications. *Bioengineered*.
25. G. Bharath, J. Prakash, Anuj Kumar, K. Rambabu, G. Devanand, Ashok Kumar Nadda, Vijai Kumar Gupta, Fawzi Banat, Abu Haiza (2021). Surface engineering of Au nanostructures for plasmon-enhanced electrochemical reduction of N₂ and CO₂ into urea in the visible-NIR region. *Applied Energy*, Accepted.
26. Sonam Tripathi, Diane Purchase, Ram Chandra, Ashok Kumar Nadda, Preeti Chaturvedi Bhargava (2022) Mitigation of hazards and risks of emerging pollutants through innovative treatment techniques of post-methanated distillery effluent - A review. *Chemosphere* 134586
27. Zhenhua Huang, Maurizio Manzo, Changlei Xia, Liping Cai, Yaoli Zhang, Zhijia Liu, Ashok Kumar Nadda, Quyet Van Le, Christian Sonne, Su Shiung Lam (2022) Effects of waste-based pyrolysis as heating source: Meta-analysis of char yield and machine learning analysis. *Fuel*, 318, 123578.
28. Pooja Sharma, Deblina Dutta, Aswathy Udayan, Ashok Kumar Nadda, Su Shiung Lam, Sunil Kumar (2022). Role of microbes in bioaccumulation of heavy metals in municipal solid waste: Impacts on plant and human being. *Environmental Pollution*, 305, 119248
29. T. Hien Tran, Anh Hoang Le, T. Huu Pham, La Duc Duong, X. Cuong Nguyen, Ashok Kumar Nadda, S.W. Chang, W. Jin Chung, D. D. Nguyen, Dinh Thanh Nguyen. (2022) A sustainable, low-cost carbonaceous hydrochar adsorbent for methylene blue adsorption derived from corncobs. *Environmental Research*, 113178
30. Ghazal Srivastava, Ankur Rajpal, Anwar Khurshed, Ashok Kumar Nadda, Vinay Kumar Tyagi, Absar Ahmad Kazmi (2021) Influence of Variations in Wastewater on Simultaneous Nutrient Removal in a Pre-anoxic Selector Attached Full-scale Sewage Treating SBR. *International journal of Environment Science and Technology*. DOI 10.21203/rs.3.rs-214129/v1
31. Ghulam Yasin Anuj Kumar, Ashok Kumar Nadda (2022). A Catalyst-Free Preparation of Conjugated Poly Iron-Phthalocyanine and its Superior Oxygen Reduction Reaction Activity. *Chemical Engineering Journal*. Accepted
32. Juliana Heloisa Pinê Américo-Pinheiroa*, Gledson Renan Salomão, Claudomiro Vinicius Moreno Paschoa, Ianny Andrade Cruz, William Deodato Isiq, Luiz Fernando Romanholo Ferreirac, Nádia Hortense Torresc, Muhammad Bilal, Hafiz M. N. Iqbal, Mika Sillanpääf, Ashok Kumar Nadda* (2022). Effective adsorption of diclofenac sodium and

naproxen from water using fixed bed column loaded with composite of heavy sugarcane ash and polyethylene terephthalate. *Environmental Research*. Accepted.

33. Nguyen Thi Le, Trung-Dung Dang, Khuat Hoang Binh, Tuong Manh Nguyen, Truong Nguyen Xuan, Duong Duc La, Ashok Kumar Nadda, S. Woong Chang, D. Duc Nguyen (2022). Green synthesis of highly stable zero-valent iron nanoparticles for organic dye treatment using *Cleistocalyx operculatus* leaf extract. *Sustainable Chemistry and Pharmacy*. 25, 100598.
34. Thi Diu Dinh, Minh Nguyet Phan, Duc Thang Nguyen, Thi Mai Dung Le, Ashok Kumar Nadda, Arun Lal Srivastav, Thi Ngoc Mai Pham, Tien Duc Pham. (2022) Removal of beta-lactam antibiotic in water environment by adsorption technique using cationic surfactant functionalized nanosilica rice husk. *Environmental Research*, 210 112943
35. Ramesh Vinayagam, Niyam Dave, Thivaharan Varadavenkatesan, Natarajan Rajamohan, Mika Sillanpää, Ashok Kumar Nadda, Muthusamy Govarthan, Raja Selvaraj, (2022). Artificial neural network and statistical modelling of biosorption removal of hexavalent chromium using macroalgal spent biomass. *Chemosphere* 296, 133965
36. Giang Van Tran, Rameshprabu Ramaraj, Deepanraj Balakrishnan, Ashok Kumar Nadda, Yuwalee Unpaprom (2022) Simultaneous carbon dioxide reduction and methane generation in biogas for rural household use via anaerobic digestion of wetland grass with cow dung. *Fuel*, 317, 123487.
37. Thamer Adnan Abdullah, T. Juzsakova, Phuoc-Cuong Le, Karol Kutacz, Ali D. Salman, Rashed T. Rasheed, Muhammad Ali Mallah; Bela Varga, Hadeel Mansoor, Eva Mako, Balázs Zsirka, S. Woong Chang, Ashok Kumar Nadda, D. Duc Nguyen (2022). Poly-NIPAM/Fe₃O₄/multiwalled carbon nanotube nanocomposites for kerosene removal from water. *Environmental Pollution*. accepted.
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I hereby declare that I am an Indian national and all the statements given here are true, complete and correct to the best of my knowledge and belief.

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