

List of publications of Prof. B.K. Bajaj (2018 onwards)

1. Vishal Sharma, Parushi Nargotra, Surbhi Sharma, Ridhika Bangotra, Akhlesh P Singh, Nisha Kapoor, Ritu Mahajan, Bijender Kumar Bajaj (2024). Purification and biochemical characterization of an ionic liquid tolerant cellulase from *Aspergillus assiutensis* VS34 for potential biomass conversion applications. *Environmental Sustainability* <https://doi.org/10.1007/s42398-024-00311-1>
2. Parushi Nargotra, Bijender Kumar Bajaj, Reeta Rani Singhanian, Diksha Sharma, Vishal Sharma (2024). Transition from Linear to Circular Bioeconomy for the Sustainable Production of Green Chemicals. In: *Bioeconomy for Sustainability*, Springer Nature Singapore, https://link.springer.com/chapter/10.1007/978-981-97-1837-5_3
3. Parushi Nargotra, Rhessa Grace Guanga Ortizo, Jia-Xiang Wang, Mei-Ling Tsai, Cheng-Di Dong, Pei-Pei Sun, Bijender Kumar Bajaj, Chia-Hung Kuo, Vishal Sharma (2024). Enzymes in the bioconversion of food waste into valuable bioproducts: A circular economy perspective. *Systems Microbiology and Biomanufacturing* <https://link.springer.com/article/10.1007/s43393-024-00283-7>
4. Ridhika Bangotra, Bhavneet Kour, and Bijender Kumar Bajaj (2023). Probiotic functional attributes of lactic acid bacteria from indigenously fermented milk product kalarei. *Indian Journal of Experimental Biology (IJEB)* 61.07: 546-557.
5. Diksha Sawhney, Surbhi Vaid, Ridhika Bangotra, Surbhi Sharma, Harish Chander Dutt, Nisha Kapoor, Ritu Mahajan, Bijender Kumar Bajaj (2023). Proficient bioconversion of rice straw biomass to bioethanol using a novel combinatorial pretreatment approach based on deep eutectic solvent, microwave irradiation and laccase *Bioresource Technology* 375, 128791 <https://doi.org/10.1016/j.biortech.2023.128791>
6. Vishal Sharma, Parushi Nargotra, Surbhi Sharma, Diksha Sawhney, Surbhi Vaid, Ridhika Bangotra, Harish Chander Dutt, Bijender Kumar Bajaj (2023). Microwave irradiation-assisted ionic liquid or deep eutectic solvent pretreatment for effective bioconversion of sugarcane bagasse to bioethanol. *Energy, Ecology and Environment*, Jan 23, 1-16 <https://doi.org/10.1007/s40974-022-00267-0>
7. Surbhi Sharma, Ridhika Bangotra, Bijender Kumar Bajaj (2023). 'Application of nanomaterials for biofuel production from lignocellulosic biomass' In *Nanotechnology for Advanced Biofuels*, pp. 189-212. Elsevier, 2023. <https://doi.org/10.1016/B978-0-323-91759-9.00005-8>
8. Surbhi Sharma, Mei-Ling Tsai, Vishal Sharma, Pei-Pei Sun, Parushi Nargotra, Bijender Kumar Bajaj, Chiu-Wen Chen, Cheng-Di Dong (2023). Environment Friendly Pretreatment Approaches for the Bioconversion of Lignocellulosic Biomass into Biofuels and Value-Added Products *Environments* 2023, 10, 6 <https://doi.org/10.3390/environments10010006>
9. Shikha Sharma, Surbhi Vaid, Nisha Kapoor, Harish Chander Dutt, Bijender Kumar Bajaj, (2023). Bioprocess for enhanced production of a fibrinolytic protease with high thrombolytic potential from *Aspergillus flavus* SH71. *Research Journal of Biotechnology* 18(4):49-63 <http://dx.doi.org/10.25303/1804rjbt049063>

10. Surbhi Vaid, Surbhi Sharma, Harish Chander Dutt, Ritu Mahajan, Bijender Kumar Bajaj (2022). An eco-friendly novel approach for bioconversion of *Saccharum spontaneum* biomass to biofuel-ethanol under consolidated bioprocess. *Bioresource Technology*, 363, 127784. <https://doi.org/10.1016/j.biortech.2022.127784>
11. Parushi Nargotra, Vishal Sharma, Surbhi Sharma, Ridhika Bangotra, Bijender Kumar Bajaj (2022). Purification of an ionic liquid stable cellulase from *Aspergillus aculeatus* PN14 with potential for biomass refining. *Environmental Sustainability* <https://doi.org/10.1007/s42398-022-00232-x>
12. Gupta, Mahak, Ridhika Bangotra, Surbhi Sharma, Surbhi Vaid, Nisha Kapoor, Harish Chander Dutt, and Bijender Kumar Bajaj (2022). Bioprocess development for production of xylooligosaccharides prebiotics from sugarcane bagasse with high bioactivity potential. *Industrial Crops and Products* 178 (2022): 114591. <https://doi.org/10.1016/j.indcrop.2022.114591>
13. Bisma Habib, Surbhi Vaid, Ridhika Bangotra, Surbhi Sharma, Bijender Kumar Bajaj (2022). Bioprospecting of probiotic lactic acid bacteria for cholesterol lowering and exopolysaccharide producing potential. *Biologia* 77, 1931–1951 <https://doi.org/10.1007/s11756-022-01058-y>
14. Ram Sarup Singh, Navpreet Kaur, Dhandeep Singh, Bijender K. Bajaj, and John F. Kennedy (2022). Downstream processing and structural confirmation of pullulan—A comprehensive review. *International Journal of Biological Macromolecules* 208: 553-564. <https://doi.org/10.1016/j.ijbiomac.2022.03.163>
15. Gurleen Kour, G, R Choudhary, S Anjum, A Bhagat, Bijender Kumar Bajaj, Z. Ahmed (2022). Phytochemicals targeting JAK/STAT pathway in the treatment of rheumatoid arthritis: Is there a future? *Biochemical Pharmacology*, p.114929. <https://doi.org/10.1016/j.bcp.2022.114929>
16. Surbhi Vaid, Surbhi Sharma, Harish Chander Dutt, Ritu Mahajan and Bijender Kumar Bajaj (2021). One pot consolidated bioprocess for conversion of *Saccharum spontaneum* biomass to ethanol-biofuel. *Energy Conversion and Management*, 250: 114880, <https://doi.org/10.1016/j.enconman.2021.114880>
17. Surbhi Vaid, Surbhi Sharma and Bijender Kumar Bajaj (2021). Chemo-enzymatic approaches for consolidated bioconversion of *Saccharum spontaneum* biomass to ethanol-biofuel. *Bioresource Technology* ,329: 124898, <https://doi.org/10.1016/j.biortech.2021.124898>
18. Surbhi Sharma, Parushi Nargotra, Vishal Sharma, Ridhika Bangotra, Manpreet Kaur, Nisha Kapoor, Satya Paul, Bijender Kumar Bajaj (2021). Nanobiocatalysts for efficacious bioconversion of ionic liquid pretreated sugarcane tops biomass to biofuel. *Bioresource Technology*, 333: 125191. <https://doi.org/10.1016/j.biortech.2021.125191>
19. Shikha Sharma, Priyanka Sharma, Vishal Sharma and Bijender Kumar Bajaj (2021). Polyhydroxybutyrate as an eco-friendly alternative of synthetic plastics. In; *Environmental and Agricultural Microbiology: Applications for Sustainability*, 101-149. <https://doi.org/10.1002/9781119525899>
20. Shikha Sharma and Bijender Kumar Bajaj (2021). Valorisation of agroindustrial-residues for production of a potent thrombolytic protease from *Aspergillus terreus* SH72. *Environmental Sustainability*,1-14. <https://doi.org/10.1007/s42398-021-00181-x>
21. Gurleen Kour, Syed AssimHaq, Bijender Kumar Bajaj, Prem N. Gupta, and Zabeer Ahmed. (2021). Phytochemical add-on therapy to DMARDs therapy in rheumatoid

- arthritis: In vitro and in vivo bases, clinical evidence and future trends. *Pharmacological Research*, 169:105618, <https://doi.org/10.1016/j.phrs.2021.105618>
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 23. Vishal Sharma, Parushi Nargotra, Surbhi Sharma and Bijender Kumar Bajaj (2021). Efficacy and functional mechanisms of a novel combinatorial pretreatment approach based on deep eutectic solvent and ultrasonic waves for bioconversion of sugarcane bagasse. *Renewable Energy* 163: 1910-1922. <https://doi.org/10.1016/j.renene.2020.10.101>
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 25. Bilqeesa Bhat, Surbhi Vaid, Bisma Habib, and Bijender Kumar Bajaj (2020). Design of experiments for enhanced production of bioactive exopolysaccharides from indigenous probiotic lactic acid bacteria. *Indian Journal of Biochemistry and Biophysics*, 57: 5 539-551. [https://nopr.niscpr.res.in/bitstream/123456789/55372/1/IJBB%2057\(5\)%20539-551.pdf](https://nopr.niscpr.res.in/bitstream/123456789/55372/1/IJBB%2057(5)%20539-551.pdf)
 26. Parushi Nargotra, Vishal Sharma, Surbhi Sharma, Nisha Kapoor, and Bijender Kumar Bajaj (2020). Development of consolidated bioprocess for biofuel-ethanol production from ultrasound-assisted deep eutectic solvent pretreated *Parthenium hysterophorus* biomass, *Biomass Conversion and Biorefinery*, 1-16, <https://doi.org/10.1007/s13399-020-01017-0>
 27. SeemaDahiya, Bijender Kumar Bajaj, Anil Kumar, Santosh Kumar Tiwari, and Bijender Singh (2020). A review on biotechnological potential of multifarious enzymes in bread making. *Process Biochemistry*, 99: 206-306, <https://doi.org/10.1016/j.procbio.2020.09.002>
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 29. Sunny Sharma, Vishal Sharma, ParushiNargotra, and Bijender Kumar Bajaj (2020). Bioprocess development for production of a process-apt xylanase with multifaceted application potential for a range of industrial processes. *SN Applied Sciences*, 2: 4, <https://doi.org/10.1007/s42452-020-2541-6>
 30. Vishal Sharma, ParushiNargotra, and Bijender Kumar Bajaj (2019). Ultrasound and surfactant assisted ionic liquid pretreatment of sugarcane bagasse for enhancing saccharification using enzymes from an ionic liquid tolerant. *Aspergillus assiutensis* VS34. *Bioresource Technology*, 285:121319, <https://doi.org/10.1016/j.biortech.2019.121319>
 31. Bilqeesa Bhat and Bijender Kumar Bajaj (2019). Hypocholesterolemic potential and bioactivity spectrum of an exopolysaccharide from a probiotic isolate *Lactobacillus paracasei* M7. *Bioactive Carbohydrates and Dietary Fibre*, 19: 100191, <https://doi.org/10.1016/j.bcdf.2019.100191>
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 36. Bilqeesa Bhat, BismaHabib, NehaBhagat and Bijender Kumar Bajaj (2019). Cholesterol lowering and antioxidant potential of probiotic bacteria isolated from locally fermented milk product kalarei. *Indian Journal of Biochemistry and Biophysics*, 56:363-372. <http://op.niscair.res.in/index.php/IJBB/article/view/28182>
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 42. Surbhi Vaid, Tarun Mishra and Bijender Kumar Bajaj (2018). Ionic-liquid-mediated pretreatment and enzymatic saccharification of *Prosopis* sp. biomass in a consolidated bioprocess for potential bioethanol fuel production. *Energy, Ecology and Environment*, 3: 216-228, <https://doi.org/10.1007/s40974-018-0095>
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kalarei. *Bioresource Technology*, 254: 264-267, <https://doi.org/10.1016/j.biortech.2018.01.078>

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