

Publications of Dr. Vipin Kumar

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List of Research Publications in Refereed International and National Journals

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SCI/SCIE

1. Singh S., **Kumar V***, Gupta P., Ray M. and Kumar A. 2021. The synergy of mercury biosorption through *Brevundimonas* sp. IITISM22: Kinetics, isotherm, and thermodynamic modeling. *Journal of Hazardous Materials*. 415:125653. <https://doi.org/10.1016/j.jhazmat.2021.125653> (IF 9.038) [Q1]
2. Singh A. and **Kumar V***. 2021. Recent developments in monitoring devise for anaerobic digesters: A focus on bio-electrochemical systems. *Bioresource Technology* 326 (2021) 124937. <https://doi.org/10.1016/j.biortech.2021.124937> (IF 7.539) [Q1]
3. Ray M., **Kumar V***, Banerjee C., Gupta P., Singh S., Singh A. 2021. Investigation of biosurfactants produced by three indigenous bacterial strains, their growth kinetics and their anthracene and fluorene tolerance. *Ecotoxicology and Environmental Safety* 208. <https://doi.org/10.1016/j.ecoenv.2020.111621> (IF 4.872) [Q1]
4. Singh A. and **Kumar V***. 2021. Recent advances in synthetic biology-enabled and natural whole-cell optical biosensing of heavy metals. *Analytical and Bioanalytical Chemistry* (2021) 413:73–82. <https://doi.org/10.1007/s00216-020-02953-6>. (IF 3.637) [Q2]
5. Singh S., **Kumar V***, Gupta P., Ray M. and Singh A. 2021. An implication of biotransformation in detoxification of mercury contamination by *Morganella* sp. strain IITISM23. *Environmental Science and Pollution Research*. Online published. <https://doi.org/10.1007/s11356-021-13176-2> (IF 3.056) [Q2]
6. Gupta P., **Kumar V***, Usmani Z., Rani R., Chandra A., Gupta V.K. 2020. Implications of plant growth promoting *Klebsiella* sp. CPSB4 and *Enterobacter* sp. CPSB49 in luxuriant growth of tomato plant under chromium stress. *Chemosphere* 240. doi: 10.1016/j.chemosphere.2019.124944 (IF 5.778) [Q1]
7. Singh S. and **Kumar V***. 2020. Mercury detoxification by absorption, mercuric ion reductase, and exopolysaccharides: A Comprehensive study. *Environmental Science and Pollution Research* 27: 27181-27201. DOI: 10.1007/s11356-019-04974-w (IF =3.056) [Q2]
8. Pandey V, Ray M, **Kumar V***. 2020. Assessment of water-quality parameters of groundwater contaminated by fly ash leachate near Koradi Thermal Power Plant, Nagpur. *Environmental Science Pollution Research*. 27: 27422–27434 doi:10.1007/s11356-019-06167-x. (IF 3.056) [Q2]

9. Neha., Tarafdar, A., Sinha, A* and **Kumar, V.** (2020). Effect of glucose co-metabolism on biodegradation of Gabapentin (an anticonvulsant drug) by gram-positive bacteria *Micrococcus luteus* N.ISM.1". *Applied Biochemistry and Microbiology*. 56(4):433-440 (IF 1.022) [Q4].
10. Gupta P., **Kumar V***, Usmani Z., Rani R., Chandra A., and Gupta V.K. 2019. A comparative evaluation towards the potential of *Klebsiella* sp. and *Enterobacter* sp. in plant growth promotion, oxidative stress tolerance and chromium uptake in *Helianthus annuus* (L.). *Journal of Hazardous Materials* 377:391-398. DOI:10.1016/j.jhazmat.2019.05.054 (IF = 9.038) [Q1]
11. Usmani Z., **Kumar V***, Gupta G., Gupta P., Rani R., Chandra V. 2019. Efficacy of vermicomposted fly ash with enhanced plant growth promoting and microbial enzymatic activities on soil fertility, plant growth and yield of vegetable plants. *Nature Scientific Reports*, 9, 10455. <https://doi.org/10.1038/s41598-019-46821-5> (IF 4.011) [Q1]
12. Rani R., **Kumar V***, Usmani Z., Gupta P., and Chandra A. 2019. Influence of plant growth promoting rhizobacterial strains *Paenibacillus* sp. IITISM08, *Bacillus* sp. PRB77 and *Bacillus* sp. PRB101 using *Helianthus annuus* on degradation of endosulfan from contaminated soil. *Chemosphere* 225: 479-489. DOI: 10.1016/j.chemosphere.2019.03.037. (IF =5.778). [Q1]
13. Kushwaha B. K., Singh S., Tripathi D. K., Sharma S., Prasad S. M., Chauhan D K., **Kumar V.** and Singh V. P*. 2019. New adventitious root formation and primary root biomass accumulation are regulated by nitric oxide and reactive oxygen species in rice seedlings under arsenate stress. *Journal of Hazardous Materials*. 361: 134-140. DOI: 10.1016/j.jhazmat.2018.08.035. (IF = 9.038) [Q1].
14. Rani R., **Kumar V***, Gupta P., and Chandra A. 2019. Effect of endosulfan tolerant bacterial isolates (*Delftia lacustris* IITISM30 and *Klebsiella aerogenes* IITISM42) with *Helianthus annuus* on remediation of endosulfan from contaminated soil. *Ecotoxicology and Environmental Safety*. 168: 315-323. DOI: 10.1016/j.ecoenv.2018.10.059. (IF =4.872) [Q1].
15. Mishra, S., Singh, K., Sahu, N., Singh, S. N., Manika, N., Jain, M. K., **Kumar, V.**, Behera, S. K. 2019. Understanding the relationship between soil properties and litter chemistry in three forest communities in tropical forest ecosystem. *Environmental Monitoring Assessment* 191, 797. doi:10.1007/s10661-019-7691-x. (IF 1.959) ISSN: 0167-6369 [Q3]
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17. Kumar, A., Samadder, S.R. and **Kumar. V.** 2019. Assessment of groundwater contamination risk due to fly ash leaching using column study. *Environmental Earth Sciences* 78: 18. DOI: 10.1007/s12665-018-8009-y. (I.F = 2.18) [Q2]
18. Gupta P., Rani R., Chandra A. and **Kumar V***. 2018. Potential applications of *Pseudomonas* sp. (strain CPSB21) to ameliorate Cr⁶⁺ stress and phytoremediation of tannery effluent contaminated agricultural soils. *Nature Scientific Reports*. 8(1): 4860. DOI: 10.1038/s41598-018-23322-5. (IF = 4.011) [Q1].

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20. Chaturvedi A., Bhattacharjee S., Mondal D C., **Kumar V**. Singh P K and Singh A K*. 2019. Exploring new correlation between hazard index and heavy metal pollution index in groundwater. *Ecological Indicators*. 97: 239-246. DOI: 10.1016/j.ecolind.2018.10.023. (IF 4.490). ISSN: 1470-160X [Q1]
21. Chaturvedi A., Bhattacharjee S., Singh A K*. and **Kumar V**. 2018. A new approach for indexing groundwater heavy metal pollution. *Ecological Indicators*. 87: 323-331. DOI: 10.1016/j.ecolind.2017.12.052. (IF = 4.490). ISSN: 1470-160X [Q1]
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23. Usmani Z., **Kumar V***, Rani R., Gupta P. and Chandra A. 2018. Changes in physico-chemical, microbiological and biochemical parameters during composting and vermicomposting of coal flyash: A comparative study. *International Journal of Environmental Science and Technology*. 16 (8), 4647-4664. DOI: 10.1007/s13762-018-1893-6. (IF = 2.54) [Q2]
24. Rani R., Usmani Z., Gupta P., **Kumar V***, Chandra A. and Das A. 2017. Effects of organochlorine pesticides on plant growth-promoting traits of phosphate solubilizing rhizobacterium, *Paenibacillus* sp. IITISM08. *Environmental Science and Pollution Research*. 25(6), 5668-5680. DOI 10.1007/s11356-017-0940-z. (IF =3.056) [Q2]
25. Ray M., Usmani Z., Chandra A., **Kumar V*** and Jain M. K. 2017. Bacterial diversity in mining and non-mining regions with emphasis on plant growth promoting traits. *Chemistry and Ecology*. 33(9): 826-842. DOI: 10.1080/02757540.2017.1389909. (IF = 1.4). ISSN: 0275-7540 [Q3]
26. Pandey V., Usmani Z., Chandra A., Mishra R. K. and **Kumar V***. 2017. Environmental impact of leaching of trace elements from fly ash dumps on aquatic ecosystems. *Chemistry and Ecology*. 33(8): 777-794. DOI: 10.1080/02757540.2017.1376663. (IF = 1.4). ISSN: 0275-7540 [Q3]
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 39. Tripti, Kumar A., Usmani Z., **Kumar V.** and Anshumali. 2017. Biochar and fly ash inoculated with plant growth promoting rhizobacteria act as potential biofertilizer for luxuriant growth and yield of tomato plant. *Journal of Environmental Management*. 190: 20-27. DOI: org/10.1016/j.jenvman.2016.11.060. (IF =) [Q1]
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 42. Gupta G, **Kumar V***. and Pal A.K. 2016. Biodegradation of Polycyclic Aromatic Hydrocarbons by Microbial Consortium: A distinctive approach for decontamination of Soil. *Soil and Sediment Contamination: An International Journal*. 25(6): 597-623. DOI:10.1080/15320383.2016.1190311. (IF = 0.992) [Q4]

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44. Sen S. and **Kumar V***. 2016. Evaluating soil quality and bio-efficacy study of *Cajanus cajan* L. in coal-mine degraded land. *Turkish Journal of Agriculture and Forestry*. 40: 499-511. DOI: 10.3906/tar-1406-21. **(IF = 1.731) [Q2]**
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