

DAFTAR PUSTAKA

- Abdoli, S., Lajayer, B. A., Dehghanian, Z., Bagheri, N., Vafaei, A. H., Chamani, M., . . . Price, G. W. (2024, September 4). A Review of the Efficiency of Phosphorus Removal and Recovery from Wastewater by Physicochemical and Biological Processes: Challenges and Opportunities. *Water*, *16*(17), 2507. doi:<https://doi.org/10.3390/w16172507>
- Ahmed, A. M., Mekonnen, M. L., Jote, B. A., Damte, J. Y., Mengesha, E. T., Lednicky, T., & Mekonnen, K. N. (2024, November). Removal of phosphate from wastewater using zirconium/iron embedded chitosan/alginate hydrogel beads: An experimental and computational perspective. *International Journal of Biological Macromolecules*, *281*(2). doi:<https://doi.org/10.1016/j.ijbiomac.2024.136431>
- Almousa, M., Lim, Y. H., Al-Gorae, A. M., Ali, M. E., Abuadess, B. M., & Alshami, A. (2026, March). Development of Fe-Zr hybrid MOFs for high-efficiency arsenic removal in aqueous systems. *Results in Engineering*, *29*. doi:<https://doi.org/10.1016/j.rineng.2025.108858>
- Chen, Z., & Wirz, R. E. (2021). Plasma Materials. *Cold Atmospheric Plasma (CAP) Technology and Applications*, 71-81. doi:https://doi.org/10.1007/978-3-031-79701-9_6
- Cheng, S., Chen, T., Xu, W., Huang, J., Jiang, S., & Yan, B. (2020, July 10). Application Research of Biochar for the Remediation of Soil Heavy Metals Contamination: A Review. *Molecules*, *25*(14), 3167. doi:<https://doi.org/10.3390/molecules25143167>
- Fatima, I., Ahmad, M., Vithanage, M., & Iqbal, S. (2021, May). Abstraction of nitrates and phosphates from water by sawdust- and rice husk-derived biochars: Their potential as N- and P-loaded fertilizer for plant productivity in nutrient deficient soil. *Journal of Analytical and Applied Pyrolysis*, *155*. doi:[10.1016/j.jaap.2021.105073](https://doi.org/10.1016/j.jaap.2021.105073)
- Gupta, R. K., & Lee, E. Y. (2025, October 31). Harnessing Sustainable Biopolymers: Engineered Alginate-Based Materials for Whole-Cell Environmental Remediation. *ChemSusChem*, *19*(1). doi:<https://doi.org/10.1002/cssc.202501882t>
- Ko, V. Y., Wang, J., Lan, C., & Ryan, D. (2025, November 15). Enhanced CH₄ adsorption through ultramicropores development in cold plasma-activated biochar. *Chemical Engineering Journal*, *524*. doi:<https://doi.org/10.1016/j.cej.2025.169286>

- Kong, S., Ding, M., Yu, M., Rong, W., Wang, Y., & Yao, J. (2025, June). Enhanced phosphate removal by lanthanum functionalization using zirconium-based metal organic frameworks: Role of in situ formed La(OH)₃. *Journal of Environmental Chemical Engineering*, 13(3). doi:10.1016/j.jece.2025.116572
- Li, B., Li, L., Li, P., Dong, L., Xue, M., Liu, X., . . . Liu, X. (2025, March 10). The overlooked contribution of aquaculture to phosphorus pollution in estuary water with phosphate oxygen isotope. *Science of The Total Environment*, 968, 178905. doi:https://doi.org/10.1016/j.scitotenv.2025.178905
- Ling, X., Qi, X., Peng, W., Liu, Y., Lin, C., Guo, H., & Geng, X. (2025, November 19). Ball Milling-Assisted Fabrication of Zirconium-Biochar-Zeolite Composites for Phosphate Removal in Aquatic Systems. *Water, Air, & Soil Pollution*, 237(152). doi:10.1007/s11270-025-08730-4
- Liu, J., Wang, S., Li, Y., Duan, Z., Ning, L., Wang, Z., . . . Liu, X. (2024, July 30). High-efficiency and low-damage modification of engineering metal materials by oxygen-mixing atmospheric pressure cold plasma jets. *Applied Surface Science*, 662, 160142. doi:https://doi.org/10.1016/j.apsusc.2024.160142
- Liu, X., Zhou, W., Feng, L., Wu, L., Lv, J., & Du, W. (2022, November 14). Characteristics and Mechanisms of Phosphorous Adsorption by Peanut Shell-Derived Biochar Modified with Magnesium Chloride by Ultrasonic-Assisted Impregnation. *ACS Omega*, 7(47), 43102-43110. doi:10.1021/acsomega.2c05474
- Luo, H., Zhang, M., Rong, H., Chen, Z., Zeng, X., Wang, J., . . . Liao, P. (2022, September 3). Surface functionalized poly(vinyl alcohol)-hydrous zirconium oxide composite beads for efficient and selective sequestration of phosphate from wastewater. *Environmental Science: Water Research & Technology*, 8(11), 2614-2628. doi:10.1039/D2EW00412G
- Mohan, B., Virender, Pandey, V., Garazade, I. M., Najafov, B., Liao, X., . . . Kim, S. S. (2025, July 21). Fluorides Capture: Delving Into the Bond Between Metal-Organic Frameworks and Capture Dynamics. *Advanced Sustainable Systems*, 9(9). doi:https://doi.org/10.1002/adsu.202500304
- Mukarunyana, B., Sundberg, C., Boman, C., Kabera, T., & Fick, J. (2026, March). Coffee pulp and husk-derived hydrochars and biochars adsorb polyphenols and pesticides from wastewater. *Environmental Technology & Innovation*, 41. doi:https://doi.org/10.1016/j.eti.2025.104739

- Qiu, H., Ni, W., Zhang, H., Chen, K., & Yu, J. (2020, February 10). Fabrication and evaluation of a regenerable HFO-doped agricultural waste for enhanced adsorption affinity towards phosphate. *Science of The Total Environment*, 703. doi:10.1016/j.scitotenv.2019.135493
- Sarbani, N. M., Harada, H., Aoyagi, M., & Hidayat, E. (2025, July 27). Dual-Functioned Magnesium-Enriched Biochar Hydrogels for Phosphate Recovery and Slow-Release Nutrient Delivery. *Water*, 17(15). doi:https://doi.org/10.3390/w17152235
- Satyam, & Patra, S. (2024, May 15). Innovations and challenges in adsorption-based wastewater remediation: A comprehensive review. *Heliyon*, 10(9). doi:https://doi.org/10.1016/j.heliyon.2024.e29573
- Shabbirahmed, A. M., Jacob, A., Dey, P., Somu, P., & Haldar, D. (2025, July 12). Biomass as eco-friendly adsorbents for the removal of emerging pollutants from wastewater: A review. *Discover Applied Sciences*, 7(771). doi:https://doi.org/10.1007/s42452-025-07463-7
- Sun, R., Wang, Y., Lv, Z., Li, H., Zhang, S., Dang, Q., . . . Yuan, Y. (2024, May). Construction of Fu brick tea polysaccharide-cold plasma modified alginate microgels for probiotic delivery: Enhancing viability and colonization. *International Journal of Biological Macromolecules*, 268(1). doi:https://doi.org/10.1016/j.ijbiomac.2024.131899
- Taaca, K. L., Prieto, E. I., & Vasquez, M. R. (2022, June 23). Current Trends in Biomedical Hydrogels: From Traditional Crosslinking to Plasma-Assisted Synthesis. (X. Li, & J. Cai, Eds.) *Polymers*, 14(2560). doi:https://doi.org/10.3390/polym14132560
- Tiwari, A. K., & Pal, D. B. (2022). Nutrients contamination and eutrophication in the river. (S. Madhav, S. Kanhaiya, A. Srivastav, V. Singh, & P. Singh, Eds.) *Ecological Significance of River Ecosystems*, 11, 203-216. doi:https://doi.org/10.1016/B978-0-323-85045-2.00001-7
- Wang, X., Guo, Z., Hu, Z., & Zhang, J. (2020, May 19). Recent advances in biochar application for water and wastewater treatment: a review. *Environmental Science*. doi:https://doi.org/10.7717/peerj.9164
- Wu, H. Y., Fu, S. F., Hu, W. J., Chen, F. G., Cai, X. Q., Chen, Q. H., & Wu, Y. B. (2022). Response of different benthic biotic indices to eutrophication and sediment heavy metal pollution, in fujian coastal water, East China sea. *Chemosphere*, 307(1). doi:https://doi.org/10.1016/j.chemosphere.2022.135653
- Xu, R., Qi, G., Zhang, H., Deng, H., & Zhu, J. (2026, April 1). Inactivation mechanisms and parameter optimization of argon–oxygen low-pressure

cold plasma against foodborne pathogens in suspension and on cheese. *Food Research International*, 229, 118491. doi:<https://doi.org/10.1016/j.foodres.2026.118491>.

Zahed, M. A., Salehi, S., Tabari, Y., Farraji, H., Kachooei, S. A., Zinatizadeh, A. A., . . . Mahjouri, M. (2022, July 3). Phosphorus removal and recovery: state of the science and challenges. *Environmental Science and Pollution Research*, 29, 58561-58589. doi:<https://doi.org/10.1007/s11356-022-21637-5>

Zeng, H., Sun, S., Xu, K., Zhao, W., Hao, R., Zhang, J., & Li, D. (2022, August). Iron-loaded magnetic alginate-chitosan double-gel interpenetrated porous beads for phosphate removal from water: Preparation, adsorption behavior and pH stability. *Reactive and Functional Polymers*, 177. doi:[10.1016/j.reactfunctpolym.2022.105328](https://doi.org/10.1016/j.reactfunctpolym.2022.105328).

Zhou, K., Chen, X., Ye, T., Pan, P., Wu, D., Sun, P., . . . Yu, S. (2025, January). Enhancing phosphate removal from wastewater using optimized fly ash adsorbents. *Desalination and Water Treatment*, 321. doi:[10.1016/j.dwt.2025.101056](https://doi.org/10.1016/j.dwt.2025.101056)