

DAFTAR PUSTAKA

- Besbes, M., Fakhfakh, N., dan Benzina, M. (2009). Characterization of silica gel prepared by using sol–gel process. *Physics Procedia*, 2(3), 1087-1095.
- Dhaffouli, A., Holzinger, M., Salazar-Carballo, P. A., Carinelli, S., dan Barhoumi, H. (2025). Non-enzymatic electrochemical sensor for uric acid based on surfactant-silica-MWCNT nanohybrids functionalized with APTES. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 724, 137520.
- Giraldo, J. F. R., dan Marin, J. E. G. (2025). Application of *Fourier transform infrared spectroscopy* (FTIR) for protozoan analysis: A systematic review. *Photodiagnosis and Photodynamic Therapy*, 51, 104441.
- Harimu, L. (2022). Pengaruh Penambahan 2-Aminomethyl Pyridine pada Komposit Silika dan Karbon Aktif serta Aplikasinya untuk Adsorpsi Logam Pb²⁺ dan Cu²⁺.
- Haryanto, H. (2024). Identifikasi Jamu Yang Beredar Di Kota Makasar Menggunakan Metode SPE UV-VIS. *Jurnal Farmasi Al-Ghaffiqi*, 1(1), 11-17.
- Hastuti, S., Martini, T., dan Utami, A. T. Pemanfaatan Silika dari Abu Sekam Padi untuk Pembuatan Material Imprinted Ionic sebagai Adsorben Ion Logam Pb (II). *ALCHEMY Jurnal Penelitian Kimia*, 19(2), 162-169.
- Horoz, S., Ece, M., Ece, M. Ş., dan Kutluay, S. (2026). Eco-engineered Fe₃O₄@cellulose@ APTES nanocomposites as efficient dye-sensitized solar cell counter electrodes: Electrochemical analysis and photovoltaic performance. *International Journal of Biological Macromolecules*, 361, 152010.
- Kajama, M., Nwogu, N., dan Gobina, E. (2015). Hydrogen permeation using nanostructured silica membranes. *Witpress*, 193, 447-456.
- Kim, H. J., Mohamed, M. G., Yu, H. J., Baek, S. H., Hossain, I., Kuo, S.-W., dan Lee, J. S. (2025). Silica-Based Gas Separation Membranes: Structure–Performance Relationships Across the Si-O Continuum from Polysilsesquioxanes to Amorphous SiO₂. *Journal of Membrane Science*, 124907.
- Kumar, A., Singh, K., Bhat, R. A., dan Dixit, U. (2021). Interpretation of adsorption behaviour of cellulose, sodium carboxymethylcellulose and hydroxyethylcellulose onto activated kaolin. *JCIS Open*, 3, 100017.

- Kusuma, M. A. I. J., dan Kusumaningrum, I. K. (2024). Nanomagnetit Terlapisi Silika Sebagai Adsorben Ion Ni (II). *ALCHEMY: Journal of Chemistry*, 12(2), 1-12.
- Li, S., Yang, J., Wang, Q., Shi, L., Liang, P., Hao, Y., . . . Gao, J. (2025). Electrokinetic remediation of hexavalent chromium-contaminated soil using low-molecular-weight organic acids combined with ion exchange membranes. *Journal of Water Process Engineering*, 80, 109108.
- Liu, J., Sang, M., Yang, T., Fu, T., Ma, H., Zhang, S., . . . Jia, Q. (2026). A hydrogen-bonded network of wood sawdust/magnesium hydroxide constructed with sodium carboxymethyl cellulose for efficient heavy metal removal. *International Journal of Biological Macromolecules*, 151543.
- Makhado, E. (2025). Preparation of carboxymethyl cellulose-based silica hydrogel nanocomposite for methylene blue and malachite green dyes adsorption from aqueous solution. *Surfaces and Interfaces*, 56, 105699.
- Mazibuko, M. T., Onwubu, S. C., Mdluli, P. S., Paul, V., Teboho, M. C., dan Thabang, M. (2024). Amine-functionalized cellulose-silica composites for the remediation of hexavalent chromium (Cr IV) in contaminated water. *Results in Chemistry*, 11, 101796.
- Paalo, M., Yegit, S. S., Moumaneix, L., Kallio, T., dan Jänes, A. (2025). Synthesis of zirconium carbide via sol-gel method as a precursor for micro-and mesoporous carbide-derived carbon materials. *Carbon Trends*, 19, 100494.
- Pang, Z., Meng, Q., Hu, J., Qu, J., Li, J., dan Cai, Y. (2025). Sodium carboxymethyl cellulose intercalated graphene oxide membranes for efficient and selective separation of cationic dyes. *Separation and Purification Technology*, 135733.
- Passos, M. L., dan Saraiva, M. L. M. (2019). Detection in UV-visible spectrophotometry: Detectors, detection systems, and detection strategies. *Measurement*, 135, 896-904.
- Pitulima, J. (2018). *Studi daya serap karbon aktif batubara terhadap penurunan kadar logam Cu dalam larutan CuSO₄*. Paper presented at the Proceedings Of National Colloquium Research And Community Service.
- Purwitasari, D. G., Tussania, R., dan Fathoni, R. a. (2022). Adsorpsi logam kadmium (Cd) pada kadmium sulfat (CdSO₄) menggunakan batang pohon pisang sebagai adsorben. *Jurnal Chemurgy*, 6(1), 52-57.

- Rangelova, N., Aleksandrov, L., Angelova, T., Georgieva, N., dan Müller, R. (2014). Preparation and characterization of SiO₂/CMC/Ag hybrids with antibacterial properties. *Carbohydrate polymers*, 101, 1166-1175.
- Rukaramato, R., Babatunde, D., Madanhire, T., Mketi, N., dan Magwa, N. (2025). Nanocellulose-based materials for the removal of metal ions, pharmaceuticals, pesticides, dyes, and other pollutants from aqueous environments: A review. *Journal of industrial and engineering chemistry*, 150, 265-299.
- Rustanto, M. E., Yudita, Y., dan Ilcham, A. (2022). Manufacture of Capacitors from Activated Carbon from Used Batteries, Chicken Bones and Banana Skins: Manufacture of Capacitors from Activated Carbon from Used Batteries, Chicken Bones and Banana Skins. *Jurnal Rekayasa, Teknologi Proses dan Sains Kimia (REPROKIMIA)*, 1(2), 54-62.
- Ryu, Y.-A., dan Kim, J.-H. (2025). Hexavalent chromium induced hematological, antioxidant, neurotoxic and stress responses in starry flounder (*Platichthys stellatus*). *Comparative Immunology Reports*, 200268.
- Sanad, A., Joudi, M., Bensemlali, M., Goudali, O., Attouch, M., zahra Chajri, F., . . . Elaïssari, A. (2025). Enhanced adsorption of hexavalent chromium by modified jujube seeds: statistical modeling and optimization. *Desalination and Water Treatment*, 101358.
- September, L. A., Kheswa, N., Seroka, N. S., dan Khotseng, L. (2026). Green synthesis of amorphous silica nanoparticles (SiO₂NPs) from sugarcane bagasse ash by sol-gel method. *Next Materials*, 10, 101396.
- Setyo Eko Nugroho, d. S. Y. S. (2024). Preparasi Logam Oksida-Biogenik Silika dan Aplikasinya Dalam Penghilangan Zat Warna: Sebuah Telaah Pustaka. *RAFFLESIA JOURNAL OF NATURAL AND APPLIED SCIENCES*, 4-01, 242-251.
- Szabó, M., Kalmár, J., Ditrói, T., Bellér, G., Lente, G., Simic, N., dan Fábrián, I. (2018). Equilibria and kinetics of chromium (VI) speciation in aqueous solution—A comprehensive study from pH 2 to 11. *Inorganica Chimica Acta*, 472, 295-301.
- Thommes, M., Kaneko, K., Neimark, A. V., Olivier, J. P., Rodriguez-Reinoso, F., Rouquerol, J., dan Sing, K. S. (2015). Physisorption of gases, with special reference to the evaluation of surface area and pore size distribution (IUPAC Technical Report). *Pure and applied chemistry*, 87(9-10), 1051-1069.

- Wahyuni, A. P., Subagyo, R. D. J. N., Gunawan, R., Allo, V. L., dan Manawan, M. Pirolisis Kilat *Spirulina Platensis* Dengan Katalis Ni/Al-SBA-15. *ALCHEMY Jurnal Penelitian Kimia*, 21(2), 251-263.
- Wang, J., Liu, D., Wang, H., Yuan, J., Tian, Y., Xue, Y., . . . He, J. (2025). Macroscopic and theoretical investigation on the synergistic adsorption and reduction of high-concentration Cr (VI) onto novel diethylenetriaminepentaacetic acid-based magnetic microspheres. *Journal of Environmental Chemical Engineering*, 120658.
- Zhao, J., He, J., Liu, L., Shi, S., Guo, H., Xie, L., . . . Zhang, L. (2023). Self-cross-linking of metal-organic framework (MOF-801) in nanocellulose aerogel for efficient adsorption of Cr (VI) in water. *Separation and Purification Technology*, 327, 124942.