

DAFTAR PUSTAKA

- Agustianingsih, S. M., Puryanti, D., & Purwanto, E. (2025). Penentuan Kualitas Air Sungai Batang Agam Kota Payakumbuh berdasarkan Parameter Fisika Dan Kimia. *Jurnal Fisika Unand*, 14(yarakat3), 312–318. <https://doi.org/10.25077/jfu.14.3.312-318.2025>
- Ahmad, A., Rahman, & Hidayat. (2021). Studi Kandungan Logam Berat Timbal (Pb) Pada Sedimen Dan Air Di Sungai Jeneberang Kota Makassar 2020. *Window of Public Health Journa*, 2, 844–851. URL artikel: <http://jurnal.fkm.umi.ac.id/index.php/woph/article/view/woph2311>
- ALabdeh, D., Omidvar, B., Karbassi, A., & Sarang, A. (2020). Study of speciation and spatial variation of pollutants in Anzali Wetland (Iran) using linear regression, Kriging and multivariate analysis. *Environmental Science and Pollution Research*, 27(14), 16827–16840. <https://doi.org/10.1007/s11356-020-08126-3>
- Aljackl, A. A., Putrawiyanta, I. P., & Saptawartono. (2023). Analisis Kesesuaian Pemanfaatan Air Pada Lubang Bekas Tambang Pasir di Daerah Kelurahan Sei Gohong Kecamatan Bukit Batu Kota Palangka Raya Provinsi Kalimantan Tengah. *Journal Of Social Science Research*, 3, 10258–10172.
- Alloway, B. J. (2012). *Heavy Metals in Soils* (Third). <http://www.springer.com/series/5929>
- Anugrah, A. I. (2020). *ANALISIS SEDIMEN SUNGAI PADA BERBAGAI PENUTUPAN LAHAN DI SUB DAS JENELATA DAS JENEBERANG*.
- Arif, N., Sharma, N. C., Yadav, V., Ramawat, N., Dubey, N. K., Tripathi, D. K., Chauhan, D. K., & Sahi, S. (2019). Understanding Heavy Metal Stress in a Rice Crop: Toxicity, Tolerance Mechanisms, and Amelioration Strategies. Dalam *Journal of Plant Biology* (Vol. 62, Nomor 4, hlm. 239–253). Springer New York LLC. <https://doi.org/10.1007/s12374-019-0112-4>
- Asmorowati, D. S., Sumarti, S. S., & Ida Iryani Kristanti. (2020). Perbandingan Metode Destruksi Basah dan Destruksi Kering untuk Analisis Timbal dalam

Tanah di Sekitar Laboratorium Kimia FMIPA UNNES. *Indonesian Journal of Chemical Science*, 3. <http://journal.unnes.ac.id/sju/index.php/ijcs>

Asoka, A., Samry, W., Zubir, Z., & Sawahlunto, Z. (2016). *Sawahlunto dulu, kini, dan esok*. Lembaga Pengembangan Teknologi Informasi dan Komunikasi (LPTIK) Universitas Andalas.

Basir, Kimijima, S., Sakakibara, M., Pateda, S. M., & Sera, K. (2022). Contamination Level in Geo-Accumulation Index of River Sediments at Artisanal and Small-Scale Gold Mining Area in Gorontalo Province, Indonesia. *International Journal of Environmental Research and Public Health*, 19(10). <https://doi.org/10.3390/ijerph19106094>

Cao, Z., Qian, H., Gao, Y., Li, K., Liu, Y., Shi, X., Li, S., Zhao, W., Yang, S., Tian, P., Wu, P., & Ma, Y. (2025). Ecological risk assessment and source identification of heavy metals in the sediments of the Danjiang River Basin: A quantitative method combining multivariate analysis and the APCS-MLR model. *Ecological Indicators*, 175. <https://doi.org/10.1016/j.ecolind.2025.113518>

Chen, S.-K., Jang, C.-S., & Chou, C.-Y. (2019). Assessment of spatiotemporal variations in river water quality for sustainable environmental and recreational management in the highly urbanized Danshui River basin. *Environmental Monitoring and Assessment*, 191(2). <https://doi.org/10.1007/s10661-019-7246-1>

Chen, Z., Zhou, Q., Lv, J., Jiang, Y., Yang, H., Yang, H., Mei, S., Jia, Z., Zhang, H., Jin, Y., Liu, L., & Shen, R. (2023). Assessment of Groundwater Quality Using APCS-MLR Model: A Case Study in the Pilot Promoter Region of Yangtze River Delta Integration Demonstration Zone, China. *Water (Switzerland)*, 15(2). <https://doi.org/10.3390/w15020225>

Cheng, H., Huang, L., Ma, P., & Shi, Y. (2019). Ecological risk and restoration measures relating to heavy metal pollution in industrial and mining wastelands. *International Journal of Environmental Research and Public Health*, 16(20). <https://doi.org/10.3390/ijerph16203985>

Custodio, M., Pizarro, S., Huarcaya, J., Ortega, K., & Ccopi, D. (2025). Ecological and Human Health Risk Assessment of Heavy Metals in Mining-Affected River Sediments in the Peruvian Central Highlands. *Toxics*, 13(9). <https://doi.org/10.3390/toxics13090783>

Fadlillah, L. N., Indrastuti, A. N., Azahra, A. F., & Widyastuti, M. (2022). Evaluasi Level Toksik Logam Berat pada Air, Sedimen Tersuspensi, dan Sedimen Dasar di Sungai Winongo, D.I.Yogyakarta. *Jurnal Ilmu Lingkungan*, 20(1), 30–36. <https://doi.org/10.14710/jil.20.1.30-36>

Fadlillah, L. N., Utami, S., Rachmawati, A. A., Jayanto, G. D., & Widyastuti, M. (2023). Ecological risk and source identifications of heavy metals contamination in the water and surface sediments from anthropogenic impacts of urban river, Indonesia. *Heliyon*, 9(4). <https://doi.org/10.1016/j.heliyon.2023.e15485>

Faqihuddin, & Ubaydillah, M. I. (2021). Perbandingan Metode Destruksi Kering Dan Destruksi Basah Instrumen Spektrofotometri Serapan Atom (Ssa) Untuk Analisis Logam. *Seminar Nasional Hasil Riset dan Pengabdian Ke-III*.

Farahnaz, I., Abfertiawan, M. S., Syafila, M., Handajani, M., Gunawan, F., & Djali, F. (2023). *Distribution of Metals in River Sediment from Open-Pit Coal Mine Activity*.

Fatoki, J. O., & Badmus, J. A. (2022). Arsenic as an environmental and human health antagonist: A review of its toxicity and disease initiation. *Journal of Hazardous Materials Advances*, 5. <https://doi.org/10.1016/j.hazadv.2022.100052>

Fauzan, A. (2024). *BIOMONITORING LOGAM BERAT (As, Pb, Hg dan Cd) PADA IKAN MASAI (Mystacoleucus marginatus) DAN AIR DI SUNGAI BATANG OMBILIN SAWAHLUNTO*. Universitas Andalas.

Feng, J., Lin, Y., Li, M., Ouyang, T., & Yu, M. (2022). Characterization and Risk Assessment of Heavy Metals in Surface Sediments From Jian and Moyang Rivers in Western Guangdong. *Frontiers in Environmental Science*, 10. <https://doi.org/10.3389/fenvs.2022.927765>

- Fitriani, A. M., & Sibuh, N. (2025). Pemahaman Kontur Wilayah Kecamatan Loloda Utara Berbantuan Aplikasi QGIS. *Jurnal FisTa*, 6(1), 19–24.
- Gholizadeh, M. H., Melesse, A. M., & Reddi, L. (2016). Water quality assessment and apportionment of pollution sources using APCS-MLR and PMF receptor modeling techniques in three major rivers of South Florida. *Science of the Total Environment*, 566–567, 1552–1567. <https://doi.org/10.1016/j.scitotenv.2016.06.046>
- Habibi, Y. (2020). Validasi Metoda Destruksi Basah Dan Destruksi Kering Pada Penentuan Logam Timbal (Pb) Dan Kadmium (Cd) Dalam Tanaman Rumput. *Integrated Lab Journal*, 01(01). <https://doi.org/10.5281/zenodo.3270926>
- Hasti, A. K. (2020). *Analisis Potential Ecological Risk (Per) Berdasarkan Logam Berat Dalam Sedimen Di Sungai Code, Yogyakarta*. Universitas Islam Indonesia.
- Hendratta, L. A., & Tangkudung, H. (2021). *Rekayasa Sumber Daya Air*. CV Patra Media Grafindo Bandung.
- Hoang, H. G., Hadi, M., Nguyen, M. K., Hai Nguyen, N. S., Huy Le, P. Q., Nguyen, K. N., Tran, H. T., & Mishra, U. (2025). Assessing heavy metal pollution levels and associated ecological risks in peatland areas in the Mekong Delta region. *Environmental Research*, 274, 121319. <https://doi.org/10.1016/J.ENVRES.2025.121319>
- Juharni, Tumembouw, S. S., Kariyanti, Putra, T. B. A. E., Yusanti, I. A., Putri Riqiyatul Fardila, Lubis Vina Iman Sari, Alfionita Wuni, S. La Suriadi, Dermawan, A., Hayati, M. A., & Hafidah, R. (2025). *Manajemen Lingkungan dan Kualitas Air pada Tambak dan Kolam* (D. O. Harliasni, Ed.; 1 ed.). LSO Creative.
- Kang, M., Tian, Y., Zhang, H., & Lan, Q. (2020). Distribution, Ecological Risk Assessment, and Source Identification of Heavy Metals in River Sediments from Hai River and Its Tributaries, Tianjin, China. *Water, Air, and Soil Pollution*, 231(2). <https://doi.org/10.1007/s11270-020-4404-6>

- Kasmianti. (2026). *Metode Spektrofotometri Serapan Atom (SSA) Dalam Analisis Senyawa Logam Berat Pada Kosmetik: Narrative Review*.
- Latif, F., Said, M., & Astuti Risky Amalia. (2019). Studi Pergerakan Sedimen Akibat Fluktuasi Debit Pada Saluran Terbuka (Uji Laboratorium). *Jurnal Teknik Hidro*, 12(1).
- Li, X., Bing, J., Zhang, J., Guo, L., Deng, Z., Wang, D., & Liu, L. (2022). Ecological risk assessment and sources identification of heavy metals in surface sediments of a river–reservoir system. *Science of the Total Environment*, 842. <https://doi.org/10.1016/j.scitotenv.2022.156683>
- Listriyana, A., Handayani, C., & Pahlewi, A. D. (2023). Analisis Kualitas Air Alkalinitas Pada Perairan Tambak Intensif Situbondo. *ZONA LAUT*, 4(2). <https://journal.unhas.ac.id/index.php/zonalaut>
- Liu, Q., Liu, G., Chen, W., & Chen, G. (2021). Hmca-contour: A visual basic program based on surfer automation for soil heavy metal spatial distribution and contamination assessment mapping. *Sustainability (Switzerland)*, 13(4), 1–14. <https://doi.org/10.3390/su13042282>
- Luo, F., Zhang, F., Zhang, W., Huang, Q., & Tang, X. (2024). Distribution, Ecological Risk, and Source Identification of Heavy Metal(loid)s in Sediments of a Headwater of Beijiang River Affected by Mining in Southern China. *Toxics*, 12(2). <https://doi.org/10.3390/toxics12020117>
- Luo, P., Xu, C., Kang, S., Huo, A., Lyu, J., Zhou, M., & Nover, D. (2021). Heavy metals in water and surface sediments of the Fenghe River Basin, China: assessment and source analysis. *Water Science and Technology*, 84(10–11), 3072–3090. <https://doi.org/10.2166/wst.2021.335>
- Ma, J., Shen, Z., Wang, S., Deng, L., Sun, J., Liu, P., & She, Z. (2022). *Source apportionment of heavy metals in soils around a coal gangue heap with the APCS-MLR and PMF receptor models*. <https://doi.org/10.21203/rs.3.rs-2157353/v1>
- MacDonald, D. D., Ingersoll, C. G., & Berger, T. A. (2000). Development and evaluation of consensus-based sediment quality guidelines for freshwater

ecosystems. *Archives of Environmental Contamination and Toxicology*, 39(1), 20–31. <https://doi.org/10.1007/s002440010075>

Maharani, E. P., Briliana, H., Putri, E. H., Faraditta, F. S., & Az-Zhaffirah, A. R. (2024). A Comprehensive Review on Atomic Absorption Spectroscopy: Principles, Techniques, and Applications. *Jurnal Ilmiah Wahana Pendidikan*, 10(15), 20–29. <https://doi.org/10.5281/zenodo.13764070>

Matulessy, R. C., Kunu, P. J., & Kaya, E. (2024). *Inovasi dalam Pengelolaan Lingkungan* (P. J. Kunu, Ed.). Adab.

Men, C., Liu, R., Xu, L., Wang, Q., Guo, L., Miao, Y., & Shen, Z. (2020). Source-specific ecological risk analysis and critical source identification of heavy metals in road dust in Beijing, China. *Journal of Hazardous Materials*, 388. <https://doi.org/10.1016/j.jhazmat.2019.121763>

Meydiyati, Y., Puryanti, D., & Budiman, A. (2018). Identifikasi Pencemaran Air Sungai Batang Ombilin dari Nilai Total Disolved Solid, Konduktivitas Listrik dan Kandungan Logam Berat. *Jurnal Fisika Unand*, 7(3).

Moody, J. A. (2018). Dynamic relations for the deposition of sediment on floodplains and point bars of a freely-meandering river. *Geomorphology*, 327, 585–597. <https://doi.org/10.1016/j.geomorph.2018.11.032>

Mussakulkyzy, A., Opp, C., Amirgaliev, N., Madibekov, A., Ismukhanova, L., & Zhadi, A. (2025). Transmission of Heavy Metals in River Water and Self-Purification Capacity of Ile River. *Applied Sciences (Switzerland)*, 15(12). <https://doi.org/10.3390/app15126548>

Nasution, S. A. N., Sofia, T. F., Mahari, M. H. B., & Wulandari. (2026). Analisis Dikeluarkannya Fly Ash Bottom Ash (FABA) dari Kategori Limbah B3. *Indonesian Journal of Law and Justice*, 3(3), 1. <https://doi.org/10.47134/ijlj.v3i3.5250>

Nazir, A., Riyaz, M., Zargar, M. A., & Afzal, M. (2025). Spatial distribution, sources, ecological risk assessment of heavy metals in surface sediments of Wular lake, Kashmir, India-a Ramsar site. *Frontiers in Environmental Science*, 13. <https://doi.org/10.3389/fenvs.2025.1630494>

- Nin, C. J., & Rodgher, S. (2021). Effect of a temperature rise on metal toxicity for the aquatic biota: a systematic review. *Revista Brasileira de Ciências Ambientais*, 56(4), 710–720. <https://doi.org/10.5327/z217694781010>
- Novita, E., Anwar Bawon Rani Yudhika, & Pradana Hendra Andananta. (2021). *Evaluasi Kondisi Kualitas Air Berdasarkan Dampak Beban Pencemaran Terhadap Sebaran Oksigen Terlarut Di Sungai Gunung Pasang Kabupaten Jember*. 15.
- Pemerintah Kota Sawahlunto. (2018). *Dokumen Rencana Pembangunan Jangka Panjang Daerah (RPJPD) Kota Sawahlunto Tahun 2005-2025 2018-2023*.
- Putri, D., & Afdal. (2017). Identifikasi Pencemaran Logam Berat dan Hubungannya dengan Suseptibilitas Magnetik pada Sedimen Sungai Batang Ombilin Kota Sawahlunto. *Jurnal Fisika Unand*, 6(4).
- Putri, I. S., Damara, D. S., Akifah, N. M., & Utami, M. R. (2020). Journal of Pharmaceutical and Sciences Article Review: Evaluation of the Effectiveness of Sample Preparation Comparison in Atomic Absorption Spectrophotometry (SSA) Instrument for Analyzing Lead Metal Review Artikel: Evaluasi Efektivitas Perbandingan Preparasi Sampel Pada Instrumen Spektrofotometri Serapan Atom (SSA) Untuk Menganalisis Logam Timbal. *JPS*, 2025(3), 1961–1969. <https://doi.org/10.36490/journal-jps.com>
- Rehman, H. U., Rahman, M. U., & Ahmed, S. (2023). Depthwise evaluation of total dissolved solids and arsenic from a drilled borehole near River Ravi, Lahore, Pakistan. *Journal of Water and Climate Change*, 14(11), 4000–4009. <https://doi.org/10.2166/wcc.2023.170>
- Rifardi. (2012). *Ekologi Sedimen Laut Modern* (Revisi). UP Press.
- Sahabuddin, E. S. (2015). *Filosofi “Cemaran” Air* (K. Basri, Ed.). PT K Press.
- Sanyal, T., Bhattacharjee, P., Paul, S., & Bhattacharjee, P. (2020). Recent Advances in Arsenic Research: Significance of Differential Susceptibility and Sustainable Strategies for Mitigation. *Frontiers in Public Health*, 8. <https://doi.org/10.3389/fpubh.2020.00464>

- Shaji, E., Santosh, M., Sarath, K. V., Prakash, P., Deepchand, V., & Divya, B. V. (2021). Arsenic contamination of groundwater: A global synopsis with focus on the Indian Peninsula. *Geoscience Frontiers*, 12(3). <https://doi.org/10.1016/j.gsf.2020.08.015>
- Simpson, S. L., Batley, G. E., & Chariton, A. A. (2013). *Revision of the ANZECC/ARMCANZ Sediment Quality Guidelines Prepared for the Department of Sustainability, Environment, Water, Population and Communities*. www.csiro.au/org/HealthyCountry.html
- Sukarjo, S., Zulaehah, I., Harsanti, E. S., & Ardiwinata, A. N. (2021). Penilaian Spasial Potensi Risiko Ekologis Logam Berat di Lapisan Olah Tanah Sawah DAS Serayu Hilir, Jawa Tengah. *Jurnal Tanah dan Iklim*, 45(1), 69. <https://doi.org/10.21082/jti.v45n1.2021.69-77>
- Sumarni, S., & Oktavianus. (2022). Studi Jenis Pohon Riparian pada Sungai Belitang Desa Ijuk Kabupaten Sekadau. *PIPER*, 18. <http://jurnal.unka.ac.id/index.php/piper>
- Triyono, T. C. L., Maddusa, S. S., & Odie, R. P. (2025). *Analisis Risiko Ekologis Arsen (As) Pada Sedimen Dan Kerang Di Teluk Manado*. 6(3).
- Tulzuhrah, F., Rafi'i, A., Eryati, R., Manajemen, M. J., Perairan, S., Pengajar, S., & Manajemen, J. (2022). Kandungan Logam Berat Pada Badan Air Dan Sedimen Di Sungai Belayan Kabupaten Kutai Kartanegara. *Tropical Aquatic Sciences*, 1(1), 31–38.
- Wang, H., Wu, Q., Hu, W., Huang, B., Dong, L., & Liu, G. (2018). Using multi-medium factors analysis to assess heavy metal health risks along the Yangtze River in Nanjing, Southeast China. *Environmental Pollution*, 243, 1047–1056. <https://doi.org/10.1016/j.envpol.2018.09.036>
- Wardhani, E., Wulan, D. R., Velda, N. A., Nugraha, W. C., Rohman, O., & Irmansyah, A. Z. (2024). *Identification of Heavy Metal Concentration in Citarum River Water Using the Heavy Metal Pollution Index Method*. 21(3), 812–824.

- Zeng, J., Han, G., & Yang, K. (2020). Assessment and sources of heavy metals in suspended particulate matter in a tropical catchment, northeast Thailand. *Journal of Cleaner Production*, 265. <https://doi.org/10.1016/j.jclepro.2020.121898>
- Zeng, L., Yan, C., Yang, F., Zhen, Z., Yang, J., Chen, J., Huang, Y., Xiao, Y., & Zhang, W. (2023). The Effects and Mechanisms of pH and Dissolved Oxygen Conditions on the Release of Arsenic at the Sediment–Water Interface in Taihu Lake. *Toxics*, 11(11). <https://doi.org/10.3390/toxics11110890>
- Zhang, Y., He, X., Dong, Y., Wu, X., Liu, J., Zhang, F., He, Y., & Zhao, J. (2026). Risk sources quantitative identification of heavy metals in coal mining hinterland river sediments, Northern China. *nature portfolio*, 16(7046).

