

- Abdallah, T. (2017). Sustainable Initiatives for Public Bus Networks. *Sustainable Mass Transit*, 79–93. <https://doi.org/10.1016/B978-0-12-811299-1.00006-X>
- Abdo, N., Alhamid, A., Abu-Dalo, M., Graboski-Bauer, A., & Al Harahsheh, M. (2024). Potential health risk assessment of mixtures of heavy metals in drinking water. *Groundwater for Sustainable Development*, 25, 101147. <https://doi.org/10.1016/J.GSD.2024.101147>
- Adeyeye, K., Gibberd, J., & Chakwizira, J. (2020). Water marginality in rural and peri-urban communities. *Journal of Cleaner Production*, 273, 122594. <https://doi.org/10.1016/j.jclepro.2020.122594>
- Adhikary, S. K., Das, S. K., Chaki, T., & Rahman, M. (2013). Identifying safe drinking water source for establishing sustainable urban water supply scheme in Rangunia municipality, Bangladesh. *Proceedings - 20th International Congress on Modelling and Simulation, MODSIM 2013*, 3134–3140. <https://doi.org/10.36334/modsim.2013.120.adhikary>
- Adzmizah, Z. (2020). *Analisis Peningkatan Performa pada “PT. DISTRIBUSI AIR SANTRI” menggunakan Metode Bussines Model Canvas* [Institut Teknologi Sepuluh Nopembe]. [https://repository.its.ac.id/80430/1/09211850013005-Master\\_Thesis.pdf](https://repository.its.ac.id/80430/1/09211850013005-Master_Thesis.pdf)
- Afriyie, E., Arthur, E. K., Gikunoo, E., & Boateng, A. (2025). Bentonite-assisted carbonisation of waste polyethylene terephthalate bottles for the removal of heavy metals from polluted water. *Results in Surfaces and Interfaces*, 18, 100406. <https://doi.org/10.1016/J.RSURFI.2024.100406>
- Agency, U. S. E. P., & Water, O. (2018). *2018 Edition of the Drinking Water Standards and Health Advisories Tables*.
- Ahmed, E. F., & Abdelrahman, A. M. (2009). Flexible model for simulating drinkable water treatment station. *Proceedings - 2009 International Conference on Computer Engineering and Technology, ICCET 2009*, 2, 552–555. <https://doi.org/10.1109/ICCET.2009.135>
- Aji, A. H. P. (2016). *Operasi Teknis dan Pemeliharaan Instalasi Sistem Penyediaan Air Minum (SPAM) Kampus UGM Tahap I*. UNIVERSITAS GADJAH MADA.



- AKagi, H., Akiba, S., Arimura, K., Satoh, H., Togashi, S., Naganuma, A., Futatsuka, M., Matsuyama, A., Ando, T., & Sakamoto, M. (2001). Preventive Measures against Environmental Mercury Pollution and Its Health Effects. *JAPAN PUBLIC HEALTH ASSOCIATION, October*, 117. <http://www.nimd.go.jp/english/kenkyu/docs/manual.pdf>
- Akbar, A.-R. F. (2015). *Perencanaan Sistem Penyediaan Air Minum (SPAM) di Kampus Universitas Gadjah Mada Skripsi*. Universitas Gadjah Mada.
- Al-Washali, T. M., Sharma, S. K., & Kennedy, M. D. (2018). Alternative method for nonrevenue water component assessment. *Journal of Water Resources Planning and Management*, 144(5), 04018017. [https://doi.org/10.1061/\(ASCE\)WR.1943-5452.0000925](https://doi.org/10.1061/(ASCE)WR.1943-5452.0000925)
- Aleku, D. L., Lazareva, O., & Pichler, T. (2024). Mercury in groundwater – Source, transport and remediation. *Applied Geochemistry*, 170(May), 1–18. <https://doi.org/10.1016/j.apgeochem.2024.106060>
- Almandoz, J., Cabrera, E., Arregui, F., Cabrera Jr., E., & Cobacho, R. (2005). Leakage assessment through water distribution network simulation. *Journal of Water Resources Planning and Management*, 131(6), 458–466. [https://doi.org/10.1061/\(ASCE\)0733-9496\(2005\)131:6\(458\)](https://doi.org/10.1061/(ASCE)0733-9496(2005)131:6(458))
- AMAP/UN Environment. (2019). *Technical Background Report to the Global Mercury Assessment 2018* (Arctic Mon). Narayana Press, Gylling, DK-8300 Odder, Denmark.
- Andersen, O. (2016). Chelation Treatment During Acute and Chronic Metal Overexposures— Experimental and Clinical Studies. *Chelation Therapy in the Treatment of Metal Intoxication*, 85–252. <https://doi.org/10.1016/B978-0-12-803072-1.00004-3>
- Apréaz, B. E. (2021). *Digitalization in the drinking water sector: Towards smart water supply management* (hal. 266–288). Edward Elgar Publishing. <https://research.tilburguniversity.edu/en/publications/digitalization-in-the-drinking-water-sector-towards-smart-water-s>
- Aquarion Technologies. (n.d.). *Pressure Sand Filter - PT AQUARION TECHNOLOGIES*. Diambil 1 Juni 2025, dari <https://aquariontechnologies.weebly.com/pressure-sand-filter.html>

Comprehensive analysis and human health risk assessment of tap water quality in Dhaka City, Bangladesh: Integrating source identification, index-based evaluation, and heavy metal assessment. *Journal of Hazardous Materials*, 485, 136837. <https://doi.org/10.1016/J.JHAZMAT.2024.136837>

Armbruster, D. A., & Pry, T. (2008). Limit of Blank, Limit of Detection and Limit of Quantitation. *The Clinical Biochemist Reviews*, 29(Suppl 1), S49. <https://pubmed.ncbi.nlm.nih.gov/articles/PMC2556583/>

Asefa, E. M., Damtew, Y. T., Mengistu, D. A., Tolera, S. T., Dugasa, F. F., Berhanu, A., Enoe, J., Ober, J., Teklu, B. M., & Weldemariam, E. D. (2024). Heavy metals in Ethiopian drinking water and public health risks: Insights from nationwide and regional analysis. *Science of The Total Environment*, 947, 174527. <https://doi.org/10.1016/J.SCITOTENV.2024.174527>

Ashong, G. W., Ababio, B. A., Kwaansa-Ansah, E. E., Gyabeng, E., & Nti, S. O. (2024). Human and ecotoxicological risk assessment of heavy metals in polymer post treatment sludge from Barekese Drinking Water Treatment Plant, Kumasi. *Toxicology Reports*, 12, 404–413. <https://doi.org/10.1016/J.TOXREP.2024.03.010>

Aslani, R., Esmaceli, S., Akbari, M. E., Molae-Aghae, E., Sadighara, P., Nazmara, S., & Mahmoudi, B. (2024). Determination of heavy metals, nitrate and nitrite in mineral and drinking bottled water in Tehran, Iran: A health risk assessment by Monte-Carlo simulation method. *Heliyon*, 10(23), e40714. <https://doi.org/10.1016/J.HELIYON.2024.E40714>

Avni, N., Fishbain, B., & Shamir, U. (2015). Water consumption patterns as a basis for water demand modeling. *Water Resources Research*, 51(10), 8165–8181. <https://doi.org/10.1002/2014WR016662>

Azad, A. R., Karim, M. R., Rakib, M. R. J., & Uddin, M. R. (2025). Assessment of heavy metal pollution and spatial distribution in waterfalls of Chattogram district, Bangladesh: Implications for drinking and irrigation purposes. *Environmental Advances*, 19, 100613. <https://doi.org/10.1016/J.ENVADV.2025.100613>

Badan Standardisasi Nasional. (2021). SNI 8995:2021 Metode pengambilan contoh uji air

- Bagnato, E., Aiuppa, A., Parello, F., D'Alessandro, W., Allard, P., & Calabrese, S. (2009). Mercury concentration, speciation and budget in volcanic aquifers: Italy and Guadeloupe (Lesser Antilles). *Journal of Volcanology and Geothermal Research*, 179(1–2), 96–106. <https://doi.org/10.1016/j.jvolgeores.2008.10.005>
- Bamantoro, A. (2017). *Analisis beban Operasional Unit Produksi SPAM (Sistem penyediaan Air Minum) Universitas Gadjah Mada dan Peluang Penghematan melalui Perbaikan Faktor Daya* (Vol. 11, Nomor 1). UNIVERSITAS GADJAH MADA.
- Barr, R. D., Rees, P. H., Cordy, P. E., Kungu, A., Woodger, B. A., & Cameron, H. M. (1972). Nephrotic syndrome in adult Africans in Nairobi. *British medical journal*, 2(5806), 131–134. <https://doi.org/10.1136/BMJ.2.5806.131>
- Basuki, T. M., Indrawati, D. R., Nugroho, H. Y. S. H., Pramono, I. B., Setiawan, O., Nugroho, N. P., Nada, F. M. H., Nandini, R., Savitri, E., Adi, R. N., Purwanto, & Sartohadi, J. (2024). Water Pollution of Some Major Rivers in Indonesia: The Status, Institution, Regulation, and Recommendation for Its Mitigation. *Polish Journal of Environmental Studies*, 33(4), 3515–3530. <https://doi.org/10.15244/pjoes/178532>
- Belmeziti, A., M'HAMMEDI BOUZINA, A., & De GOUVELLO, B. (2025). Emergence of a new paradigm of water supply through adaptation strategies of the intermittent system in Algerian residential buildings. *Cities*, 158, 105657. <https://doi.org/10.1016/j.cities.2024.105657>
- Berlin, M., Zalups, R., & Fowler, B. (2015). Handbook on the toxicology of metals. In G. F. Nordberg, B. A. Fowler, M. Nordberg, & L. T. Friberg (Ed.), *Environmental Pollution Series A, Ecological and Biological* (Vol. 22, Nomor 4, hal. 323–324). Elsevier. [https://doi.org/10.1016/0143-1471\(80\)90008-2](https://doi.org/10.1016/0143-1471(80)90008-2)
- Beshir, A., Reddythota, D., & Alemayehu, E. (2024). Evaluation of drinking water quality and associated health risks in Adama City, Ethiopia. *Heliyon*, 10(16), e36363. <https://doi.org/10.1016/J.HELIYON.2024.E36363>
- BIS. (2021). *IS ISO 5667-3:2018 water Quality - Sampling. December*, 1–23.



- Block, P., Kasnitz, D., Nishida, A., & Pollard, N. (2015). Occupying Disability: Critical Approaches to Community, Justice, and Decolonizing Disability. *Occupying Disability: Critical Approaches to Community, Justice, and Decolonizing Disability*, 1–394. <https://doi.org/10.1007/978-94-017-9984-3>
- Blokker, M., Agudelo-Vera, C., Moerman, A., Van Thienen, P., & Pieterse-Quirijns, I. (2017). Review of applications for SIMDEUM, a stochastic drinking water demand model with a small temporal and spatial scale. *Drinking Water Engineering and Science*, 10(1), 1–12. <https://doi.org/10.5194/dwes-10-1-2017>
- Bojago, E., Tyagi, I., Ahamad, F., & Chandniha, S. K. (2023). GIS based spatial-temporal distribution of water quality parameters and heavy metals in drinking water: Ecological and health modelling. *Physics and Chemistry of the Earth, Parts A/B/C*, 130, 103399. <https://doi.org/10.1016/J.PCE.2023.103399>
- Borzi, I. (2023). Vulnerability assessment of water supply infrastructures through multiple indicator methodology. *Journal of Water and Climate Change*, 14(11), 3967–3984. <https://doi.org/10.2166/wcc.2023.148>
- Bose-O'Reilly, S., McCarty, K. M., Steckling, N., & Lettmeier, B. (2010). Mercury exposure and children's health. *Current Problems in Pediatric and Adolescent Health Care*, 40(8), 186–215. <https://doi.org/10.1016/j.cppeds.2010.07.002>
- Brocza, F. M., Rafaj, P., Sander, R., Wagner, F., & Jones, J. M. (2024). Global scenarios of anthropogenic mercury emissions. *Atmospheric Chemistry and Physics*, 24(12), 7385–7404. <https://doi.org/10.5194/ACP-24-7385-2024>
- BSI. (2012). *BS EN ISO 12846:2012* (hal. 1–26).
- BSN. (2004). *Sni 06-6992.2-2004 Cara uji merkuri (Hg) secara uap dingin (cold vapour ) dengan Mercury Analyzer*.
- BSN. (2015). *SNI 3553:2015 Air mineral*.
- BSN. (2019). *SNI 6989-78:2019 Air dan air limbah – Bagian 78 : Cara uji air raksa atau merkuri ( Hg ) secara Spektrometri Serapan Atom ( SSA ) - uap dingin. Standar Nasional Indonesia*.

Guidelines for Canadian Drinking Water Quality—Summary Tables. Water and Air Quality Bureau, Healthy Environments and Consumer Safety Branch, 24 Health Canada 46 (2025). <https://doi.org/10.1021/ba-1987-0214.ch035>

Carissimi, E., Rodrigues, C. O., Elkhatib, D., & Oyanedel-Craver, V. (2018). Flocculation: Mechanisms and applications for wastewater treatment. In *Flocculation: Processes and Applications* (hal. 81–105). <https://www.scopus.com/record/display.uri?eid=2-s2.0-85206839161&origin=scopusAI>

Cassano, G. B., Viola, P. L., Ghetti, B., & Amaducci, L. (1969). The Distribution of Inhaled Mercury (Hg<sub>203</sub>) Vapors in the Brain of Rats and Mice. *Journal of Neuropathology & Experimental Neurology*, 28(2), 308–320. <https://doi.org/10.1097/00005072-196904000-00010>

Cervera, V. J. M., Monleón, L. M., Orts, R. R., Jordà, J. I. S., & Klee, J. M. (2007). Conversion of sand filters into activated carbon filters tu the la Presa (Valencia) water works[Conversión de filtros de arena por carbón activo en la ETAP de la Presa (Valencia)]. *Tecnologia del Agua*, 27(282), 46–52. <https://www.scopus.com/record/display.uri?eid=2-s2.0-34247624063&origin=scopusAI>

Cheremisnoff, N. P. (2002). Handbook of water and wastewater treatment technologies, Boston: Butterworth-Heinemann. In *Chapter*.

Cheryan, M. (1998). *Ultrafiltration and Microfiltration Handbook*. CSR PRESS.

National Standard of the People's Republic of China, GB 5749-20 Ministry of Health 1 (2006).

De Filippis, L. F. (2015). Role of Phytoremediation in Radioactive Waste Treatment. *Soil Remediation and Plants: Prospects and Challenges*, 207–254. <https://doi.org/10.1016/B978-0-12-799937-1.00008-5>

WATER, ENGLAND AND WALES The Water Supply (Water Quality) Regulations SI 2016/614, Water, England and Wales 52 (2016). [http://www.legislation.gov.uk/uksi/2016/614/pdfs/uksi\\_20160614\\_en.pdf](http://www.legislation.gov.uk/uksi/2016/614/pdfs/uksi_20160614_en.pdf)

DOH. (2017). Philippine National Standards for Drinking Water of 2017. In *Administrative-Order-No.-2017-0010* (hal. 1–37).

- dos Santos, P. R., & Daniel, L. A. (2020). A review: organic matter and ammonia removal by biological activated carbon filtration for water and wastewater treatment. *International Journal of Environmental Science and Technology*, 17(1), 591–606. <https://doi.org/10.1007/s13762-019-02567-1>
- Dupont. (2018). *PES In-Out Ultrafiltration system creates Municipal Drinking Water at Putatan, Philippines*.
- Dupont. (2022). *Ultrafiltration Technical Manual*. Dupont, May, 1–81. <https://www.dupont.com/content/dam/dupont/amer/us/en/water-solutions/public/documents/en/UF-Ultrafiltration-Manual-45-D00874-en.pdf>
- Dupont. (2024). *DuPont™ IntegraTec™ Modules SFP-2860, SFD 2860, SFP-2880, SFD-2880*. 45, 1–3.
- Edzwald, J. K. (2011). *Water Quality & Treatment: A Handbook on Drinking Water*. In *American Water Works Association*. McGraw-Hill Education. <https://www.accessengineeringlibrary.com/content/book/9780071630115>
- El Baroudi, H., Ouazzani, C., Moustaghfir, A., Er-Ramly, A., Essebbahi, I., El Baroudi, Y., Dami, A., & Balouch, L. (2024). Evaluation of drinking water quality and potential health risks on the population in Morocco. *Desalination and Water Treatment*, 320, 100715. <https://doi.org/10.1016/J.DWT.2024.100715>
- Elder, D. (2024). Validation of analytical procedures – ICH Q2(R2). *European Pharmaceutical Review*, 29(1), 5.
- Elezz, A. A., Hassan, H. M., Alsaadi, H. A., Easa, A., Al-Meer, S., Elsaid, K., Ghouri, Z. K., & Abdala, A. (2018). Validation of Total Mercury in Marine Sediment and Biological Samples, Using Cold Vapour Atomic Absorption Spectrometry. *Methods and Protocols 2018, Vol. 1, Page 31, 1(3)*, 31. <https://doi.org/10.3390/MPS1030031>
- Ellis, J. B. (2014). *Water Quality and Treatment*. In *Water Resources in the Built Environment: Management Issues and Solutions* (Vol. 9780470670910, hal. 77–91). Wiley Blackwell. <https://doi.org/10.1002/9781118809167.ch7>
- Emde, K. M. E., Smith, D. W., Fok, N., Gammie, L., Ancel, S., & Clarke, L. (2007). Water distribution infrastructure failures: Emergency versus repair? *American Water Works*

- ENVEA. (2022). *AULA-254 Gold, Automatic Laboratory Mercury Analyzer*.  
<https://www.envea.global/s/ambient/mercury-monitors-ambient/aula-254-gold/>
- EPA. (1994). Determination of Mercury in Water By Cold Vapor Atomic Absorption Spectrometry Method 245.1. *Environmental Monitoring Systems Laboratory Office of Research and Development*, 1–18.
- EPA. (2018). METHOD 6010D INDUCTIVELY COUPLED PLASMA—OPTICAL EMISSION SPECTROMETRY. *Hazardous Waste Test Methods*, 6(1), 1–7.  
<https://www.epa.gov/hw-sw846/sw-846-test-method-6010d-inductively-coupled-plasma-optical-emission-spectrometry-icp-oes>
- Erickson, J. J., Quintero, Y. C., & Nelson, K. L. (2020). Characterizing supply variability and operational challenges in an intermittent water distribution network. *Water (Switzerland)*, 12(8), 2143. <https://doi.org/10.3390/W12082143>
- Fahimah, N., Salami, I. R. S., Oginawati, K., & Mubiarto, H. (2024). Appraisal of pollution levels and non-carcinogenic health risks associated with the emergence of heavy metals in Indonesian community water for sanitation, hygiene, and consumption. *Emerging Contaminants*, 10(3), 100313. <https://doi.org/10.1016/J.EMCON.2024.100313>
- Fahrianto, A. S., Supraba, I., Triatmadja, R., & Kamulyan, B. (2018). Universitas Gadjah Mada Drinking Water Supply System (UGM-DWSS) Potential on Supporting Green Campus Program in Universitas Gadjah Mada. *Applied Mechanics and Materials*, 881, 55–63.  
<https://doi.org/10.4028/www.scientific.net/amm.881.55>
- Fajri, P. Y., Putri, N. E., Agustina, & Desminarti, S. (2023). Analysis of Heavy Metals on Various Refilled Drinking Water Depots Circulated in Limapuluh Kota Regency, West Sumatera Province by Inductively Coupled Plasma (ICP) Methods. *IOP Conference Series: Earth and Environmental Science*, 1182(1). <https://doi.org/10.1088/1755-1315/1182/1/012065>
- Friberg, L., & Nordberg, F. (1973). Inorganic mercury – a toxicological and epidemiological appraisal. In *Mercury, mercurials and mercaptans* (hal. 5–22). Thomas, Charles C. Publisher, Ltd.



Frisbie, S. H., Mitchell, E. J., & Sarkar, B. (2015). Urgent need to reevaluate the latest World Health Organization guidelines for toxic inorganic substances in drinking water. *Environmental Health: A Global Access Science Source*, 14(1), 1–15. <https://doi.org/10.1186/S12940-015-0050-7/TABLES/1>

Galerimedika. (2020). *Oxygen Concentrator GEA 7F-5 - Mesin Penghasil Oksigen | Galeri Medika*. [https://www.galerimedika.com/alat-bantu-pernapasan/oksigen-konsentrator/oxygen-concentrator-gea-7f-5?srsId=AfmBOorV9tYA0QDjNUPK17NxDKBVvwRLedJ4xNQ\\_ckGJcBMmSrNKRHYd](https://www.galerimedika.com/alat-bantu-pernapasan/oksigen-konsentrator/oxygen-concentrator-gea-7f-5?srsId=AfmBOorV9tYA0QDjNUPK17NxDKBVvwRLedJ4xNQ_ckGJcBMmSrNKRHYd)

Ghaudenson, R., Priadi, C. R., & Foster, T. (2021). Effectiveness of Groundwater Boiling as Household Water Treatment in Metro and Bekasi Cities, Indonesia. *E3S Web of Conferences*, 277. <https://doi.org/10.1051/E3SCONF/202127704002>

Gonzales, L. G. V., García Ávila, F. F., Cabello Torres, R. J., Castañeda Olivera, C. A., & Alfaro Paredes, E. A. (2021). Scientometric study of drinking water treatments technologies: Present and future challenges. *Cogent Engineering*, 8(1). [https://doi.org/10.1080/23311916.2021.1929046/ASSET/9653D8F2-0F32-4697-ACAF-C917FE3C8949/ASSETS/IMAGES/OAEN\\_A\\_1929046\\_F0011\\_OC.JPG](https://doi.org/10.1080/23311916.2021.1929046/ASSET/9653D8F2-0F32-4697-ACAF-C917FE3C8949/ASSETS/IMAGES/OAEN_A_1929046_F0011_OC.JPG)

Gray, J. E., Theodorakos, P. M., Bailey, E. A., & Turner, R. R. (2000). Distribution, speciation, and transport of mercury in stream-sediment, stream-water, and fish collected near abandoned mercury mines in southwestern Alaska, USA. *Science of The Total Environment*, 260(1–3), 21–33. [https://doi.org/10.1016/S0048-9697\(00\)00539-8](https://doi.org/10.1016/S0048-9697(00)00539-8)

Gustafson, J. M., Homeniuk, R., Bainbridge, K., Griffin, D., Osman, H., & Macey, C. (2008). Leveraging your misfortunate: Using water main failure history analysis to forecast long-term funding needs. *American Water Works Association - American Water Works Association Association Annual Conference and Exposition, ACE 2008*, 1526–1572.

Haig, S. J., Collins, G., Davies, R. L., Dorea, C. C., & Quince, C. (2011). Biological aspects of slow sand filtration: Past, present and future. *Water Science and Technology: Water Supply*, 11(4), 468–472. <https://doi.org/10.2166/ws.2011.076>

Haque, M. A., Khatun, B., Jewel, M. A. S., Ara, J., Islam Kazal, M. S., & Hasan, J. (2024). Assessment of water quality and heavy metal indices in a tropical freshwater river for

Hatch, W. R., & Ott, W. L. (1968). Determination of Sub-Microgram Quantities of Mercury by Atomic Absorption Spectrophotometry. *Analytical Chemistry*, 40(14), 2085–2087.

<https://doi.org/10.1021/ac50158a025>

Haukelidsaeter, S., Boersma, A. S., Piso, L., Lenstra, W. K., van Helmond, N. A. G. M., Schoonenberg, F., van der Pol, E., Hurtarte, L. C. C., van der Wielen, P. W. J. J., Behrends, T., van Kessel, M. A. H. J., Lücker, S., & Slomp, C. P. (2024). Efficient chemical and microbial removal of iron and manganese in a rapid sand filter and impact of regular backwash. *Applied Geochemistry*, 162, 105904.

<https://doi.org/10.1016/j.apgeochem.2024.105904>

Hayes, A. D., & Rothstein, A. (1962). THE METABOLISM OF INHALED MERCURY VAPOR IN THE RAT STUDIED BY ISOTOPE TECHNIQUES. *The Journal of Pharmacology and Experimental Therapeutics*, 138(1), 1–10.

[https://doi.org/10.1016/S0022-3565\(25\)26380-7](https://doi.org/10.1016/S0022-3565(25)26380-7)

Herschy, R. W. (2012). Water quality for drinking: WHO guidelines. *Encyclopedia of Earth Sciences Series*, 876–883. [https://doi.org/10.1007/978-1-4020-4410-6\\_184](https://doi.org/10.1007/978-1-4020-4410-6_184)

Hobbs, I., Anda, M., & Bahri, P. A. (2019). Estimating peak water demand: Literature review of current standing and research challenges. *Results in Engineering*, 4, 100055.

<https://doi.org/10.1016/j.rineng.2019.100055>

Hossain. (2019). Water. *Sustainable Design and Build*, 301–418. <https://doi.org/10.1016/B978-0-12-816722-9.00006-9>

Hossain, M. Z. (2015). WATER: THE MOST PRECIOUS RESOURCE OF OUR LIFE. *Global Journal of Advanced Research*, 2(Issue-9), 1436–1445.

[https://www.researchgate.net/publication/282573650\\_WATER\\_THE\\_MOST\\_PRECIOUS\\_RESOURCE\\_OF\\_OUR\\_LIFE](https://www.researchgate.net/publication/282573650_WATER_THE_MOST_PRECIOUS_RESOURCE_OF_OUR_LIFE)

Hu, G., Rana, A., Mian, H. R., Saleem, S., Mohseni, M., Jasim, S., Hewage, K., & Sadiq, R. (2020). Human health risk-based life cycle assessment of drinking water treatment for heavy metal(oids) removal. *Journal of Cleaner Production*, 267, 121980.

- Hursh, J. B., Clarkson, T. W., Miles, E. F., & Goldsmith, L. A. (1989). Percutaneous absorption of mercury vapor by man. *Archives of environmental health*, 44(2), 120–127. <https://doi.org/10.1080/00039896.1989.9934385>
- Hutomo, P. (2023). *INVESTIGASI SIKLUS HIDUP PRODUKSI AIR MINUM SPAM TOYAGAMA UGM UNTUK MENINGKONSTRUKSI DATABASE LIFE CYCLE INVENTORY (LCI)* (Nomor LIFE CYCLE INVENTORY). Universitas Gadjah Mada.
- Hutomo, P. (2024). *Identifikasi potensi dampak lingkungan & kesehatan manusia akibat produksi air minum spam toyagama menggunakan life cycle assessment*.
- Igwe, P. U. ., Chukwudi, C. C. ., Ifenatuorah, F. C. ., Fagbeja, I. F. ., & Okeke, C. A. (2017). A Review of Environmental Effects of Surface Water Pollution. *International Journal of Advanced Engineering Research and Science*, 4(12), 128–137. <https://doi.org/10.22161/ijaers.4.12.21>
- IPCS. (1991). *Mercury, inorganic (EHC 118,1991)*. <http://www.inchem.org/documents/ehc/ehc/ehc118.htm>
- Ivanova, E. H. (2005). ATOMIC ABSORPTION SPECTROMETRY | Principles and Instrumentation. *Encyclopedia of Analytical Science: Second Edition*, 149–156. <https://doi.org/10.1016/B0-12-369397-7/00024-8>
- JB, H., MG, C., TW, C., JJ, V., & RV, M. (1976). Clearance of mercury (HG-197, HG-203) vapor inhaled by human subjects. *Archives of environmental health*, 31(6), 302–309. <https://doi.org/10.1080/00039896.1976.10667240>
- JECFA. (1972). *Evaluation of certain food additives and the contaminants mercury, lead, and cadmium: sixteenth report of the Joint FAO/WHO Expert Committee on Food Additives*. <https://www.who.int/publications/i/item/9241205059>
- JECFA. (2004). Evaluation of certain food additives and contaminants. *World Health Organization technical report series*, 922, 1–176. <https://pubmed.ncbi.nlm.nih.gov/15354533/>
- JECFA. (2007). Evaluation of certain food additives and contaminants. In *World Health*

- JECFA. (2011). Evaluation of certain food additives and contaminants. In *Toxicants of Plant Origin: Glycosides: Volume II*. WHO Technical Report Series.  
<https://doi.org/10.1201/9781003418276-2>
- Ji, Z., & Pei, Y. (2019). Geopolymers produced from drinking water treatment residue and bottom ash for the immobilization of heavy metals. *Chemosphere*, 225, 579–587.  
<https://doi.org/10.1016/J.CHEMOSPHERE.2019.03.056>
- Jiang, J., Zhang, X., Wen, G., Zhu, M., & Zheng, Y. (2024). Purification Resistance Index: A new water quality assessment method toward drinking water production. *Water Research*, 267, 122555. <https://doi.org/10.1016/J.WATRES.2024.122555>
- Johannesson, K. H., & Neumann, K. (2013). Geochemical cycling of mercury in a deep, confined aquifer: Insights from biogeochemical reactive transport modeling. *Geochimica et Cosmochimica Acta*, 106, 25–43. <https://doi.org/10.1016/j.gca.2012.12.010>
- Kallithrakas-Kontos, N., & Spyros, F. (2016). Recent Advances in the Analysis of Mercury in Water-Review. *Bentham Science Publishers*, 12(Current Analytical Chemistry), 22–36.  
<https://doi.org/http://dx.doi.org/10.2174/157341101201151007120324>
- Kamulyan, B. (1997). *Teknik Penyehatan (Bagian A1: Teknik Pengolahan Air)*. Universitas Gajah Mada.
- Karimanzira, D., Jacobi, M., & Ament, C. (2007). Determinants of domestic water demand for the Beijing region. *WIT Transactions on Ecology and the Environment*, 103, 101–110.  
<https://doi.org/10.2495/WRM070111>
- Kawamura, S. (2000). *Integrated design and operation of water treatment facilities*. 691.
- Peraturan Menteri Kesehatan Republik Indonesia Nomor 2 Tahun 2023 Tentang Peraturan Pelaksanaan Peraturan Pemerintah Nomor 66 Tahun 2014 Tentang Kesehatan Lingkungan, Kemenkes Republik Indonesia 1 (2023).
- Kenney, E. L., Daly, J. G., Lee, R. M., Mozaffarian, R. S., Walsh, K., Carter, J., & Gortmaker, S. L. (2019). Providing Students with Adequate School Drinking Water Access in an Era

of Aging Infrastructure: A Mixed Methods Investigation. *International Journal of Environmental Research and Public Health* 2020, Vol. 17, Page 62, 17(1), 62.  
<https://doi.org/10.3390/IJERPH17010062>

Khawaji, A. D., Kutubkhanah, I. K., & Wie, J. M. (2008). Advances in seawater desalination technologies. *Desalination*, 221(1–3), 47–69.  
<https://doi.org/10.1016/J.DESAL.2007.01.067>

Kibukamusoke, J. W., Davies, D. R., & Hutt, M. S. R. (1974). Membranous nephropathy due to skin-lightening cream. *British medical journal*, 2(5920), 646–647.  
<https://doi.org/10.1136/BMJ.2.5920.646>

Kim, T. J. (2020). Assessment of watershed characteristics with limited water quantity and quality data. *Environmental Monitoring and Assessment*, 192(8), 486.  
<https://doi.org/10.1007/s10661-020-08419-7>

Klosok-Bazan, I., Boguniewicz-Zablocka, J., Suda, A., Łukasiewicz, E., & Anders, D. (2021). Assessment of leakage management in small water supplies using performance indicators. *Environmental Science and Pollution Research*, 28(30), 41181–41190.  
<https://doi.org/10.1007/s11356-021-13575-5>

Koley, S., Rao, K. B., Khwairakpam, M., & Kalamdhad, A. S. (2024). Identification and assessment of Critical parameters affecting drinking water quality: A case study of water treatment plants of India. *Groundwater for Sustainable Development*, 26, 101221.  
<https://doi.org/10.1016/J.GSD.2024.101221>

Kontinen, Y. T., Milošev, I., Trebše, R., Rantanen, P., Linden, R., Tiainen, V. M., & Virtanen, S. (2008). Metals for joint replacement. *Joint Replacement Technology*, 115–162.  
<https://doi.org/10.1533/9781845694807.2.115>

Kopp, J. F., Longbottom, M. C., & Lobring, L. B. (1972). “Cold Vapor” Method for Determining Mercury. *Journal / American Water Works Association*, 64(1), 20–25.  
<https://doi.org/10.1002/j.1551-8833.1972.tb02624.x>

Kosta, L., Byrne, A. R., & Zelenko, V. (1975). Correlation between selenium and mercury in man following exposure to inorganic mercury. *Nature*, 254(5497), 238–239.  
<https://doi.org/10.1038/254238A0>



Kozin, L. F., & Hansen, S. C. (2013). Mercury Handbook: Chemistry, Applications and Environmental Impact. *Mercury Handbook*. <https://doi.org/10.1039/9781849735155>

Kučera, T., & Hanušová, V. (2018). Recirculation of sludge-water in the water treatment process – A pilot study. *Water Practice and Technology*, 13(3), 461–468. <https://doi.org/10.2166/WPT.2018.059>

Kumar, P., Rangarajan, S., Chauhan, A., & Chauhan, A. (2024). Analysis and Design of Water Distribution Network for the Potheri Village, Chengalpattu District, Tamil Nadu, India. *Lecture Notes in Civil Engineering*, 398, 477–488. [https://doi.org/10.1007/978-981-99-6229-7\\_42](https://doi.org/10.1007/978-981-99-6229-7_42)

Kwietniewski, M. (2013). Application of water loss indicators as a measure of its distribution effectiveness in water supply systems[Zastosowanie wskaźników strat wody do oceny efektywności jej dystrybucji w systemach wodociagowych]. *Ochrona Srodowiska*, 35(4), 9–16.

Lahnsteiner, J. (2024). *Handbook of water and used water purification*. Springer. <https://link.springer.com/referencework/10.1007/978-3-319-78000-9>

Langford, N. J., & Ferner, R. E. (1999). Review Toxicity of Mercury. *Journal of Human Hypertension*, 13(March), 651–656.

Lapworth, D. J., Boving, T. B., Kremer, D. K., Kebede, S., & Smedley, P. L. (2022). Groundwater quality: Global threats, opportunities and realising the potential of groundwater. *Science of the Total Environment*, 811, 152471. <https://doi.org/10.1016/j.scitotenv.2021.152471>

Lenntech. (2011). Product Manual. *Lenntech water Treatment Solution*, 3(15), 1–5. <http://www.takara-bio.com>

Li, J., Lv, L., Zhe, W., Deng, X., Lin, Q., Xia, R., & Fu, R. (2025). Evaluation of drinking water quality in Xinjiang based on the improved comprehensive water quality index. *Heliyon*, 11(1), e41160. <https://doi.org/10.1016/J.HELIYON.2024.E41160>

Lin, L., Xu, X., Papelis, C., & Xu, P. (2017). Innovative use of drinking water treatment solids for heavy metals removal from desalination concentrate: Synergistic effect of salts and natural organic matter. *Chemical Engineering Research and Design*, 120, 231–239.

- Lipps, W. C., Braun-Howland, E. B., & Baxter, T. E. (2023). Standard Methods for The Examination Of Water and Wastewater 24th Edition. In *APHA Press* (hal. 1536). <https://engage.awwa.org/PersonifyEbusiness/Bookstore/Product-Details/productId/162167531>
- Liu, X., Zhang, J., & Wang, R. (2013). Study on external water quantity calculation of drainage systems based on conductivity measurement. *ICPTT 2013: Trenchless Technology - The Best Choice for Underground Pipeline Construction and Renewal, Proceedings of the International Conference on Pipelines and Trenchless Technology*, 151–161. <https://doi.org/10.1061/9780784413142.016>
- Lizcano-Caro, J. A., Medina-Daza, R., & González-Pérez, M. G. (2020). Proposed meta-model for the regulation of the urban demand for drinking water [Propuesta de metamodelo para la regulación de la demanda urbana de agua potable]. *Studia Romanica Posnaniensia*, 47(3), 35–54. <https://doi.org/10.14746/STROP.2020.473.003>
- Maglas, N. N. M., Turki, S. A. S., Qiang, Z., Ali, M. M. M., Osta, A. AL, Alwarqi, M. S., & Najar, M. (2025). Assessment of radioactive nuclides and heavy metals in soil and drink water in Lahij city, Yemen. *Applied Radiation and Isotopes*, 215, 111566. <https://doi.org/10.1016/J.APRADISO.2024.111566>
- Martínez Galera, M., Gil García, M. D., Culzoni, M. J., & Goicoechea, H. C. (2010). Determination of pharmaceuticals in river water by column switching of large sample volumes and liquid chromatography-diode array detection, assisted by chemometrics: An integrated approach to green analytical methodologies. *Journal of Chromatography A*, 1217(13), 2042–2049. <https://doi.org/10.1016/j.chroma.2010.01.082>
- Masduqi, A., & Assomadi, A. F. (2012). *Operasi & Proses Pengolahan Air* (Edisi Kedu). ITS PRESS.
- Maulida, R. (2019). *Evaluasi Operasional dan Pemeliharaan Sistem Penyediaan Air Minum (SPAM) Kampus Universitas Gadjah Mada* (Vol. 2, Nomor 1). Universitas Gadjah Mada.
- McLagan, D. S., Schwab, L., Wiederhold, J. G., Chen, L., Pietrucha, J., Kraemer, S. M., & Biester, H. (2022). Demystifying mercury geochemistry in contaminated soil–

groundwater systems with complementary mercury stable isotope, concentration, and speciation analyses. *Environmental Science: Processes & Impacts*, 24(9), 1406–1429. <https://doi.org/10.1039/D1EM00368B>

Megaritis, A. G., Murphy, B. N., Racherla, P. N., Adams, P. J., & Pandis, S. N. (2014). Impact of climate change on mercury concentrations and deposition in the eastern United States. *Science of The Total Environment*, 487(1), 299–312. <https://doi.org/10.1016/J.SCITOTENV.2014.03.084>

Meng, F., Liu, D., Bu, T., Zhang, M., Peng, J., & Ma, J. (2025). Assessment of pollution and health risks from exposure to heavy metals in soil, wheat grains, drinking water, and atmospheric particulate matter. *Journal of Environmental Management*, 376, 124448. <https://doi.org/10.1016/J.JENVMAN.2025.124448>

Miller, J., & Miller, J. C. (2010). Statistics and Chemometrics for Analytical Chemistry. In *Statistics and Chemometrics for Analytical Chemistry*.

Milton Roy. (2020). Instruction Manual Instruction Manual. *International Business*, 37.

National Standard for Drinking Water Quality, Ministry of Health Malaysia (2004). [https://www.gunungganang.com.my/pdf/Malaysian-Policies-Standards-Guidelines/Standards/National Drinking Water Quality Standard.pdf](https://www.gunungganang.com.my/pdf/Malaysian-Policies-Standards-Guidelines/Standards/National%20Drinking%20Water%20Quality%20Standard.pdf)

Mitchell, E. J., & Frisbie, S. H. (2023). A comprehensive survey and analysis of international drinking water regulations for inorganic chemicals with comparisons to the World Health Organization's drinking-water guidelines. *PLOS ONE*, 18(11), e0287937. <https://doi.org/10.1371/JOURNAL.PONE.0287937>

Mohammad, A., Asgedom, A. G., Mokenen, K. N., Tesfay, A. H., Gebretsadik, T. T., & Van der Bruggen, B. (2024). Evaluation of groundwater quality for drinking water using a quality index in Abyi Adi, Tigray, Northern Ethiopia. *Heliyon*, 10(16), e36173. <https://doi.org/10.1016/J.HELIYON.2024.E36173>

Mugiarti, L. D. (2023). *Evaluasi Kinerja dan Pemeliharaan Unit Instalasi Sistem Penyediaan Air Minum (SPAM) Kampus Universitas Gadjah Mada*. Universitas Gadjah Mada.

Müller, S., Corbera-Rubio, F., Schoonenberg Kegel, F., Laurenzi, M., van Loosdrecht, M. C. M., & van Halem, D. (2024). Shifting to biology promotes highly efficient iron removal

<https://doi.org/10.1016/j.watres.2024.122135>

- Na Nagara, V., Sarkar, D., Elzinga, E. J., & Datta, R. (2022). Removal of heavy metals from stormwater runoff using granulated drinking water treatment residuals. *Environmental Technology & Innovation*, 28, 102636. <https://doi.org/10.1016/J.ETI.2022.102636>
- National Environmental Engineering Research Institute, N. (2013). *Handbook On Drinking Water Treatment Technologies February, 2013.pdf*. 186. [www.neeri.res.in](http://www.neeri.res.in)
- NIC. (2023, April 14). *Five Possible Causes Why Lab Analysts Are Having Poor Precision in Mercury Analysis: NIC*. NIC A Rigaku Company. [https://www.hg-nic.com/poor-precision-mercury-analysis/?utm\\_source=chatgpt.com](https://www.hg-nic.com/poor-precision-mercury-analysis/?utm_source=chatgpt.com)
- NTP. (1993). *Technical Report Series No. 408 Toxicology and Carcinogenesis Studies of Mercuric Chloride*. 408. [https://ntp.niehs.nih.gov/sites/default/files/ntp/htdocs/lt\\_rpts/tr408.pdf](https://ntp.niehs.nih.gov/sites/default/files/ntp/htdocs/lt_rpts/tr408.pdf)
- Nugroho, D. F., Oktorin, L. A., & Nugroho, T. (2015). *Laporan tahunan Sistem Penyediaan Air Minum (SPAM) Kampus "GAMAQUA CENTER" Tahun 2015*.
- Ociepa, E. (2021). Analysis and assessment of water losses reduction effectiveness using examples of selected water distribution systems. *Desalination and Water Treatment*, 211, 196–209. <https://doi.org/10.5004/dwt.2021.26594>
- Omarova, A. (2022). Ways to Protect and Preserve Human and Planetary Health Through the Water, Sanitation and Hygiene Sector in Schools. In *Climate Change Management* (hal. 63–77). Springer Science and Business Media Deutschland GmbH. [https://doi.org/10.1007/978-3-031-09879-6\\_5](https://doi.org/10.1007/978-3-031-09879-6_5)
- Otsuka, Y. (1989). Re-examination of tanks' lower limit for liquid level. *Idemitsu Sekiyu Gijutsu; (Japan)*, 32:3.
- Pan, F., Zhu, S., Shang, L., Wang, P., Liu, L., & Liu, J. (2024). Assessment of drinking water quality and health risk using water quality index and multiple computational models: a case study of Yangtze River in suburban areas of Wuhan, central China, from 2016 to 2021. *Environmental Science and Pollution Research*, 31(15), 22736–22758. <https://doi.org/10.1007/S11356-024-32187-3/TABLES/8>

- Pavithra, K. G., SundarRajan, P., Kumar, P. S., & Rangasamy, G. (2023a). Mercury sources, contaminations, mercury cycle, detection and treatment techniques: A review. *Chemosphere*, 312(P1), 137314. <https://doi.org/10.1016/j.chemosphere.2022.137314>
- Pavithra, K. G., SundarRajan, P., Kumar, P. S., & Rangasamy, G. (2023b). Mercury sources, contaminations, mercury cycle, detection and treatment techniques: A review. *Chemosphere*, 312, 137314. <https://doi.org/10.1016/J.CHEMOSPHERE.2022.137314>
- Penyelenggaraan Perlindungan dan Pengelolaan Lingkungan Hidup, (2021). <https://peraturan.bpk.go.id/Details/161852/pp-no-22-tahun-2021>
- PT. Jasuka Bangun Pratama. (2014). *Panduan Pengoperasian Dan Perawatan Sistem UF 2 x 432 m<sup>3</sup>/hari untuk Universitas Gadjah Mada.*
- PUPR. (2007). *Penyelenggaraan pengembangan sistem penyediaan air minum.* [ciptakarya.pu.go.id/dok/hukum/permen/permen\\_18\\_2007.pdf](http://ciptakarya.pu.go.id/dok/hukum/permen/permen_18_2007.pdf)
- Radivojević, D., Blagojević, B., & Ilić, A. (2020). Water supply system performance improvement in the town of pirot using water balance IWA methodology and numerical simulations. *Tehnicki Vjesnik*, 27(3), 970–977. <https://doi.org/10.17559/TV-20180514195054>
- Rahmat, S. N., Al-Gheethi, A. A. S., Ayob, S., & Mohd Shahli, F. (2020). Development of dual water supply using rooftop rainwater harvesting and groundwater systems. *SN Applied Sciences*, 2(1), 1–8. <https://doi.org/10.1007/S42452-019-1862-9/TABLES/3>
- Peraturan Menteri Pekerjaan Umum dan Perumahan Rakyat Republik Indonesia Nomor 27/Prt/M/2016 Tentang Penyelenggaraan Sistem Penyediaan Air Minum, 4 2016 (2016).
- Rashid, S., Shah, I. A., Supe Tulcan, R. X., Rashid, W., & Sillanpaa, M. (2022). Contamination, exposure, and health risk assessment of Hg in Pakistan: A review. *Environmental Pollution*, 301, 118995. <https://doi.org/10.1016/j.envpol.2022.118995>
- Ritchie, H., Spooner, F., & Roser, M. (2024). Clean Water. *Our World in Data*. <https://ourworldindata.org/clean-water>
- Roser, M. (2023). Ensure access to water and sanitation for all. *Our World in Data*. <https://ourworldindata.org/sdgs/clean-water-sanitation>



- Roser, M., & Ritchie, H. (2024). Two centuries of rapid global population growth will come to an end. *Our World in Data*. <https://ourworldindata.org/world-population-growth-past-future>
- Roshidah, M. U. (2019). Perencanaan Sistem Pengolahan Air Limbah. In *Institut Teknologi Sepuluh Nopember Surabaya*. Institut Teknologi Sepuluh Nopember Surabaya.
- Rustoen, R. A., & Ziegler, S. R. (2012). Child exposure to elemental mercury. In *Child Exposure to Elemental Mercury*. Nova Science Publishers, Inc.
- Rytuba, J. J. (2003). Mercury from mineral deposits and potential environmental impact. *Environmental Geology*, 43(3), 326–338. <https://doi.org/10.1007/S00254-002-0629-5/METRICS>
- Saeedi, R., Sadeghi, S., Massoudinejad, M., Oroskhan, M., Mohagheghian, A., Mohebbi, M., & Abtahi, M. (2024). Assessing drinking water quality based on water quality indices, human health risk, and burden of disease attributable to heavy metals in rural communities of Yazd County, Iran, 2015–2021. *Heliyon*, 10(13), e33984. <https://doi.org/10.1016/J.HELIYON.2024.E33984>
- Said, N. I. (2008). *Teknologi pengelolaan air minum: teori dan pengalaman praktis*.
- Sayato, Y. (1989). WHO Guidelines for Drinking-Water Quality. *Eisei kagaku*, 35(5), 307–312. <https://doi.org/10.1248/jhs1956.35.307>
- Schwartz, M. O. (1997). Mercury in Zinc Deposits: Economic Geology of a Polluting Element. *International Geology Review*, 39(10), 905–923. <https://doi.org/10.1080/00206819709465309>
- Sciuto, E. L., Coniglio, M. A., Corso, D., van der Meer, J. R., Acerbi, F., Gola, A., & Libertino, S. (2019). Biosensors in Monitoring Water Quality and Safety: An Example of a Miniaturizable Whole-Cell Based Sensor for Hg<sup>2+</sup> Optical Detection in Water. *Water* 2019, Vol. 11, Page 1986, 11(10), 1986. <https://doi.org/10.3390/W11101986>
- Seeger, R. (1976). *Absorption Newslett.* 15, 45.
- Senanu, L. D., Kranjac-Berisavljevic, G., & Cobbina, S. J. (2023). The use of local materials to remove heavy metals for household-scale drinking water treatment: A review.

<https://doi.org/10.1016/J.ETI.2023.103005>

Setiadi, T. (2016). *Diktat Kuliah : Pengolahan dan Penyediaan Air untuk Industri TK – 2206 Sistem Utilitas I PENGOLAHAN dan PENYEDIAAN AIR Oleh : Prof . Dr . Tjandra Setiadi Program Studi Teknik Kimia. October.*  
<https://doi.org/10.13140/RG.2.2.23558.57920>

Setiawan, T., Triatmadja, R., Supraba, I., & Kamulyan, B. (2018). Campus Drinking Water Supply System Performance Analysis Universitas Gadjah Mada of Yogyakarta. *Applied Mechanics and Materials*, 881, 64–69.  
<https://doi.org/10.4028/www.scientific.net/amm.881.64>

Shah, A., Arjunan, A., Manning, G., Batool, M., Zakharova, J., Hawkins, A. J., Ajani, F., Androulaki, I., & Thumma, A. (2024). Sequential novel use of Moringa oleifera Lam., biochar, and sand to remove turbidity, E. coli, and heavy metals from drinking water. *Cleaner Water*, 2, 100050. <https://doi.org/10.1016/J.CLWAT.2024.100050>

Shanley, J. B., Taylor, V. F., Ryan, K. A., Chalmers, A. T., Perdrial, J., & Stubbins, A. (2022). Using dissolved organic matter fluorescence to predict total mercury and methylmercury in forested headwater streams, Sleepers River, Vermont USA. *Hydrological Processes*, 36(5), e14572. <https://doi.org/10.1002/hyp.14572>

Sharma, R. (2014). Handbook on Water and Waste water Treatment. In *Ion Exchange (India) Ltd.* (Vol. 11, Nomor 1).  
[http://scioteca.caf.com/bitstream/handle/123456789/1091/RED2017-Eng-8ene.pdf?sequence=12&isAllowed=y%0Ahttp://dx.doi.org/10.1016/j.regsciurbeco.2008.06.005%0Ahttps://www.researchgate.net/publication/305320484\\_SISTEM\\_PEMBETU\\_NGAN\\_TERPUSAT\\_STRATEGI\\_MELESTARI](http://scioteca.caf.com/bitstream/handle/123456789/1091/RED2017-Eng-8ene.pdf?sequence=12&isAllowed=y%0Ahttp://dx.doi.org/10.1016/j.regsciurbeco.2008.06.005%0Ahttps://www.researchgate.net/publication/305320484_SISTEM_PEMBETU_NGAN_TERPUSAT_STRATEGI_MELESTARI)

Shemer, H., Wald, S., & Semiat, R. (2023). Challenges and Solutions for Global Water Scarcity. *Membranes*, 13(6). <https://doi.org/10.3390/MEMBRANES13060612>

Shen, C., Zhao, Y., Li, W., Yang, Y., Liu, R., & Morgen, D. (2019). Global profile of heavy metals and semimetals adsorption using drinking water treatment residual. *Chemical Engineering Journal*, 372, 1019–1027. <https://doi.org/10.1016/J.CEJ.2019.04.219>



Shrader, D. E., & Hobbins, W. B. (2010). The Determination of Mercury by Cold Vapor Atomic Absorption. *Agilent Technologies*, 48(1), 1–6. <https://doi.org/10.1021/ac60365a020>

Siepak, J., & Boszke, L. (2004). Analytical methods in determination of mercury species in environmental samples. An overview. *Acta Toxicologica*, 12(2), 87–100. <https://www.scopus.com/record/display.uri?eid=2-s2.0-17644428001&origin=scopusAI>

Simukonda, K., Farmani, R., & Butler, D. (2018). Causes of intermittent water supply in Lusaka City, Zambia. *Water Practice and Technology*, 13(2), 335–345. <https://doi.org/10.2166/wpt.2018.046>

Sollome, J., & Fry, R. C. (2015). Environmental Contaminants and the Immune System: A Systems Perspective. *Systems Biology in Toxicology and Environmental Health*, 171–186. <https://doi.org/10.1016/B978-0-12-801564-3.00007-9>

SPAM TOYAGAMA. (2019). SOP PENGOPERASIAN MESIN PRODUKSI. *SOP*, 11(1), 1–14. [http://scioteca.caf.com/bitstream/handle/123456789/1091/RED2017-Eng-8ene.pdf?sequence=12&isAllowed=y%0Ahttp://dx.doi.org/10.1016/j.regsciurbeco.2008.06.005%0Ahttps://www.researchgate.net/publication/305320484\\_SYSTEM\\_PEMBETUNGAN\\_TERPUSAT\\_STRATEGI\\_MELESTARI](http://scioteca.caf.com/bitstream/handle/123456789/1091/RED2017-Eng-8ene.pdf?sequence=12&isAllowed=y%0Ahttp://dx.doi.org/10.1016/j.regsciurbeco.2008.06.005%0Ahttps://www.researchgate.net/publication/305320484_SYSTEM_PEMBETUNGAN_TERPUSAT_STRATEGI_MELESTARI)

Spedaletti, S., Rossi, M., Comodi, G., Cioccolanti, L., Salvi, D., & Lorenzetti, M. (2022). Improvement of the energy efficiency in water systems through water losses reduction using the district metered area (DMA) approach. *Sustainable Cities and Society*, 77, 103525. <https://doi.org/10.1016/j.scs.2021.103525>

Spellman, F. R. (2020). Handbook of Water and Wastewater Treatment Plant Operations. In *Handbook of Water and Wastewater Treatment Plant Operations*. <https://doi.org/10.1201/9781003038351>

Standard, B. of indian. (2021). IS ISO 5667-1:2020 Water Quality - Sampling. *BUREAU OF INDIAN STANDARDS, December*, 1–44.

Stux, R., & Rothery, E. (1971). A Simple Procedure for Determining Mercury at ppb Levels. *Technical Topics, Varian Techtron*.

Suif, Z., Che Osmi, S. K., Othman, M., Ahmad, N., & Ezzat Aripin, A. M. (2022). Design of Groundwater Filter Media Using Activated Carbon for Emergency Purpose. *Lecture Notes*

- Sultana, N., Akib, S., Aqeel Ashraf, M., & Roseli Zainal Abidin, M. (2016). Quality assessment of harvested rainwater from green roofs under tropical climate. *Desalination and Water Treatment*, 57(1), 75–82. <https://doi.org/10.1080/19443994.2015.1015307>
- Szpak, D., & Piegdoń, I. (2019). Identification of Failure Causes in the Water Supply Network [Identyfikacja przyczyn awarii sieci wodociagowej]. *Journal of Konbin*, 49(2), 283–300. <https://doi.org/10.2478/jok-2019-0036>
- Tauson, V., & Mg, A. (1980). Hydrothermal Study of the ZnS-HgS System. *HYDROTHERMAL STUDY OF THE ZNS-HGS SYSTEM*.
- Taylor, S. R. (1964). Abundance of chemical elements in the continental crust: a new table. *Geochimica et Cosmochimica Acta*, 28(8), 1273–1285. [https://doi.org/10.1016/0016-7037\(64\)90129-2](https://doi.org/10.1016/0016-7037(64)90129-2)
- Tian, Z., Lehmann, B., Deng, C., Luo, A., Zhang, X., Moynier, F., & Yin, R. (2023). Mercury abundance and isotopic composition in granitic rocks: Implications for Hg cycling in the upper continental crust. *Geochimica et Cosmochimica Acta*, 361, 200–209. <https://doi.org/10.1016/J.GCA.2023.09.019>
- Tisler, S., Mrkajic, N. S., Reinhardt, L. M., Jensen, C. M., Clausen, L., Thomsen, A. H., Albrechtsen, H. J., & Christensen, J. H. (2025). A non-target evaluation of drinking water contaminants in pilot scale activated carbon and anion exchange resin treatments. *Water Research*, 271, 122871. <https://doi.org/10.1016/j.watres.2024.122871>
- Turan, M. (2023). Backwashing of granular media filters and membranes for water treatment: a review. *Aqua Water Infrastructure, Ecosystems and Society*, 72(3), 274–298. <https://doi.org/10.2166/aqua.2023.207>
- UNESCO. (2023). *Partnerships and cooperation for water | UN World Water Development Report 2023*. <https://www.unesco.org/reports/wwdr/2023/en>
- Veeraswamy, D., Subramanian, A., Mohan, D., Ettiyagounder, P., Selvaraj, P. S., Ramasamy, S. P., & Veeramani, V. (2024). Exploring the origins and cleanup of mercury contamination: a comprehensive review. *Environmental Science and Pollution Research*, 31(41), 53943–53972. <https://doi.org/10.1007/s11356-023-30636-z>

- Wang, L. K., Vaccari, D. A., Li, Y., & Shammas, N. K. (1990). Water Quality and Treatment A Handbook of Community Water Supplies American Water Works Association. In *Handbook of Environmental Chemistry, Volume 3: Physicochemical Treatment Process* (Vol. 3). [https://www.academia.edu/34870374/WATER\\_QUALITY\\_AND\\_TREATMENT\\_A\\_Handbook\\_of\\_Community\\_Water\\_Supplies\\_American\\_Water\\_Works\\_Association](https://www.academia.edu/34870374/WATER_QUALITY_AND_TREATMENT_A_Handbook_of_Community_Water_Supplies_American_Water_Works_Association)
- Wang, M., Bai, S., & Wang, X. (2021). Enhanced removal of heavy metals and phosphate in stormwater filtration systems amended with drinking water treatment residual-based granules. *Journal of Environmental Management*, 280, 111645. <https://doi.org/10.1016/J.JENVMAN.2020.111645>
- Wang, S., Song, W., Liu, E., Zhao, P., Ng, H. Y., & Wang, X. (2025). Efficient, facile and recyclable coating strategy to improve heavy metals removal by UF membrane in drinking water purification. *Separation and Purification Technology*, 363, 131995. <https://doi.org/10.1016/J.SEPPUR.2025.131995>
- Wang, Wei, S., Huang, S., Liu, W., & Wang, Z. (2024). Practical Remediation of Hg-Contaminated Groundwater by MoS<sub>2</sub>: Batch and Column Tests. *Molecules*, 29(21). <https://doi.org/10.3390/molecules29215132>
- Warkany, J., & Hubbard, D. M. (1951). ADVERSE MERCURIAL REACTIONS IN THE FORM OF ACRODYNIA AND RELATED CONDITIONS. *A.M.A. American Journal of Diseases of Children*, 81(3), 335–373. <https://doi.org/10.1001/ARCHPEDI.1951.02040030345004>
- Water Science School. (2019, November 13). *How Much Water is There on Earth? | U.S. Geological Survey*. <https://www.usgs.gov/special-topics/water-science-school/science/how-much-water-there-earth>
- Wegelin, M. (1996). *Surface Water Treatment by Roughing Filters : A Design, Construction and Opertaion Manual* (hal. 163). <https://www.emergency-wash.org/water/en/technologies/technology/rapid-sand-filtration>. <https://www.ircwash.org/resources/surface-water-treatment-roughing-filters-design-construction-and-operation-manual>

- WHO. (2005). Mercury in Drinking-water, Background document for development of WHO Guidelines for Drinking-water Quality. *Who, WHO/SDE/WS, WHO/SDE/WSH/05.08/10*. [http://www.who.int/water\\_sanitation\\_health/dwq/chemicals/mercuryfinal.pdf](http://www.who.int/water_sanitation_health/dwq/chemicals/mercuryfinal.pdf)
- WHO. (2021a). A global overview of national regulations and standards for drinking-water quality, Second edition. In *Water, Sanitation, Hygiene and Health (WSH)*. <https://www.who.int/publications/i/item/9789241513760>
- WHO. (2021b). Mercury and human health. In *World Health Organization*.
- WHO. (2022). Guidelines for drinking-water quality: fourth edition incorporating the first and second addenda. In *World Health Organization* (Vol. 21, Nomor 6). <https://www.who.int/publications/i/item/9789240045064>
- Wicaksono, M. A. (2017). *Analisis Konsumsi Energi kendaraan listrik untuk Distribusi produk Air Minum SPAM UGM* (Vol. 11). Universitas Gadjah Mada.
- Yang, Z. L., Gao, B. Y., Yue, Q. Y., & Jiang, Y. S. (2010). Relationship among coagulation effect of Al-based coagulant, content and speciation of residual aluminum. *Huanjing Kexue/Environmental Science*, 31(6), 1542–1547. <https://www.scopus.com/record/display.uri?eid=2-s2.0-77954301845&origin=scopusAI>
- Yu, W., Xu, L., Graham, N., & Qu, J. (2014). Pre-treatment for ultrafiltration: Effect of pre-chlorination on membrane fouling. *Scientific Reports*, 4, 6513. <https://doi.org/10.1038/srep06513>
- Yu, X., Niu, W., Wang, Y. Y., Olaleye, O. E., Wang, J. N., Duan, M. Y., Yang, J. L., He, R. R., Chu, Z. X., Dong, K., Zhang, G. P., Liu, C. X., Cheng, C., & Li, C. (2022). Novel assays for quality evaluation of XueBiJing: Quality variability of a Chinese herbal injection for sepsis management. *Journal of Pharmaceutical Analysis*, 12(4), 664–682. <https://doi.org/10.1016/j.jpha.2022.01.001>
- Zainol, W. M., Alias, H., Zamri, N., Dzulkfli, N., Rusdi, M., Dapari, R., Mansor, Z., Dom, N. C., Hassan, M. R., & Rahim, S. S. S. A. (2024). FACTORS ASSOCIATED WITH DEMAND FOR TREATED WATER: A SYSTEMATIC REVIEW. *Malaysian Journal of Public Health Medicine*, 24(1), 110–122.
- Zaki, N., Hadoudi, N., Charki, A., Bensitel, N., Ouarghi, H. El, Amhamdi, H., & Ahari, M.

(2023). Advancements in the chemical treatment of potable water and industrial wastewater using the coagulation–flocculation process. *Separation Science and Technology (Philadelphia)*, 58(15), 2619–2630.  
<https://doi.org/10.1080/01496395.2023.2219381>

Zhang, Chang, S., Zhang, Q., Bai, Y., Wang, E., Zhang, M., Fu, Q., Wei, L., & Yu, Y. (2023). Heavy metals in influent and effluent from 146 drinking water treatment plants across China: Occurrence, explanatory factors, probabilistic health risk, and removal efficiency. *Journal of Hazardous Materials*, 450, 131003.  
<https://doi.org/10.1016/J.JHAZMAT.2023.131003>

Zhang, H., Zhang, S., Liu, Y., Yang, M., Zhou, X., Abbas, G., Wang, L., & Lu, J. (2024). Effects of chloride on corrosion scale compositions and heavy metal release in drinking water distribution systems. *Journal of Hazardous Materials*, 465, 133452.  
<https://doi.org/10.1016/J.JHAZMAT.2024.133452>

Zhang, J., Chao, J., Tang, Y., Wan, P., Yang, X. J., Wong, C., Bruce, M., & Hu, Q. (2019). Quantification of Trace Mercury in Water: Solving the Problem of Adsorption, Sample Preservation, and Cross-Contamination. *Global Challenges*, 4(1), 1900061.  
<https://doi.org/10.1002/GCH2.201900061>

Zhang, K., Chang, S., Tu, X., Wang, E., Yu, Y., Liu, J., Wang, L., & Fu, Q. (2024). Heavy metals in centralized drinking water sources of the Yangtze River: A comprehensive study from a basin-wide perspective. *Journal of Hazardous Materials*, 469, 133936.  
<https://doi.org/10.1016/J.JHAZMAT.2024.133936>