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REFERENCES

Abu-Qare, A., Abdel-Rahman, A., Kishk, A., & Abou-Donia, M. (2000). Placental transfer and pharmacokinetics of a single dermal dose of [14C]methyl parathion in rats. *Toxicological Sciences : An Official Journal of the Society of Toxicology*, ***53***, 5–12.

Adeyinka, A., Muco, E., & Pierre, L. (2022). Organophosphates. In *StatPearls*. StatPearls Publishing. http://www.ncbi.nlm.nih.gov/books/NBK499860/

Affum, A. O., Acquaah, S. O., Osae, S. D., & Kwaansa-Ansah, E. E. (2018). Distribution and risk assessment of banned and other current-use pesticides in surface and groundwaters consumed in an agricultural catchment dominated by cocoa crops in the Ankobra Basin, Ghana. *Science of The Total Environment*, ***633***, 630–640. https://doi.org/10.1016/j.scitotenv.2018.03.129

Ahuja, S. (Ed.). (2003). Gas chromatography. In *Separation Science and Technology* (Vol. 4, pp. 133–152). Academic Press. https://doi.org/10.1016/S0149-6395(03)80027-2

Asian Development Bank. (2016). *Country Water Assesment: Indonesia*. Asian Development Bank. https://www.adb.org/sites/default/files/institutional-document/183339/ino-water-assessment.pdf

Atapattu, S. N., & Rosenfeld, J. M. (2018). Solid Phase Analytical Derivatization. In *Reference Module in Chemistry, Molecular Sciences and Chemical Engineering*. Elsevier.

Atifah, Y., Lubis, M., Lubis, L. T., & Maulana, A. (2019). Pencemaran Pestisida Pada Sungai Batang Gadis Mandailing Natal Sumatera Utara. *BIOEDUSCIENCE*, ***3***(2), 100–105. https://doi.org/10.29405/j.bes/32100-1053729

Atwood, D., & Paisley-Jones, C. (2017). *Pesticide Industry Sales and Usage: 2008-2012 Market Estimate*. U.S. Environmental Protection Agency. https://www.epa.gov/sites/default/files/2017-01/documents/pesticides-industry-sales-usage-2016_0.pdf

Authority (EFSA), E. F. S., Carrasco Cabrera, L., & Medina Pastor, P. (2021). The 2019 European Union report on pesticide residues in food. *EFSA Journal*, ***19***(4), e06491. https://doi.org/10.2903/j.efsa.2021.6491

Barrionuevo, W., & Lancas, F. (2002). Comparison of Liquid–Liquid Extraction (LLE), Solid-Phase Extraction (SPE), and Solid-Phase Microextraction (SPME) for Pyrethroid Pesticides Analysis from Enriched River Water.

UNIVERSITAS GADJAH MADA
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Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Bulletin of Environmental Contamination and Toxicology, ***69***, 123–128. https://doi.org/10.1007/s00128-002-0018-5

Berk, Z. (2018). Chapter 11—Extraction. In Z. Berk (Ed.), *Food Process Engineering and Technology (Third Edition)* (pp. 289–310). Academic Press. https://doi.org/10.1016/B978-0-12-812018-7.00011-7

Berni, I., Menouni, A., El Ghazi, I., Godderis, L., Duca, R.-C., & Jaafari, S. E. (2021). Health and ecological risk assessment based on pesticide monitoring in Saïss plain (Morocco) groundwater. *Environmental Pollution*, ***276***, 116638. https://doi.org/10.1016/j.envpol.2021.116638

Bhattacharjee, S., Fakhruddin, A. N. M., Chowdhury, M. a. Z., Rahman, M. A., & Alam, M. K. (2012). Monitoring of selected pesticides residue levels in water samples of paddy fields and removal of cypermethrin and chlorpyrifos residues from water using rice bran. *Bulletin of Environmental Contamination and Toxicology*, ***89***(2), 348–353. https://doi.org/10.1007/s00128-012-0686-8

Ccanccapa, A., Masiá, A., Navarro-Ortega, A., Picó, Y., & Barceló, D. (2016). Pesticides in the Ebro River basin: Occurrence and risk assessment. *Environmental Pollution*, ***211***, 414–424. https://doi.org/10.1016/j.envpol.2015.12.059

CCDC. (2006). *National Standard of the People's Republic of China—Standards for Drinking Water Quality*. The Institute of Environmental Health and Product Safety Related, China CDC. http://tradechina.dairyaustralia.com.au/wp-content/uploads/2018/08/GB-5749-2006-Standards-for-Drinking-Water-Quality.pdf

CDC. (2021, September 2). *Biomonitoring | Acephate*. Centers for Disease Control and Prevention. https://www.cdc.gov/biomonitoring/Acephate_BiomonitoringSummary.html

Cequier-Sánchez, E., Rodríguez, C., Ravelo, Á. G., & Zárate, R. (2008). Dichloromethane as a Solvent for Lipid Extraction and Assessment of Lipid Classes and Fatty Acids from Samples of Different Natures. *Journal of Agricultural and Food Chemistry*, ***56***(12), 4297–4303. https://doi.org/10.1021/jf073471e

Chaza, C., Sopheak, N., Mariam, H., David, D., Baghdad, O., & Moomen, B. (2018). Assessment of pesticide contamination in Akkar groundwater, northern Lebanon. *Environmental Science and Pollution Research*, ***25***(15), 14302–14312. https://doi.org/10.1007/s11356-017-8568-6

Determination of Freshwater Contamination Caused by Organophosphate Pesticide Residue: A Narrative
Review
BARON CHRISTOPHER P, Prof. Dr. apt. Sudibyo Martono, M.S.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

ChemSrc. (2022). *Isofenphos-Methyl*. ChemSrc. https://www.chemsrc.com/en/cas/99675-03-3_509783.html

Chen, H., Zhu, J., Li, Z., Chen, A., & Zhang, Q. (2016). The occurrence and risk assessment of five organophosphorus pesticides in river water from Shangyu, China. *Environmental Monitoring and Assessment*, ***188***(11), 614. https://doi.org/10.1007/s10661-016-5612-9

Chen, Y., Yan, C., Sun, Z., Wang, Y., Tao, S., Shen, G., Xu, T., Zhou, P., Cao, X., Wang, F., Wang, S., Hao, S., Yang, H., Li, H., Zhang, Q., Liu, W., Zhao, M., & Zhang, Z. (2021). Organochlorine Pesticide Ban Facilitated Reproductive Recovery of Chinese Striped Hamsters. *Environmental Science & Technology*, ***55***(9), 6140–6149. https://doi.org/10.1021/acs.est.1c00167

Chen, Y., Yu, K., Hassan, M., Xu, C., Zhang, B., Gin, K. Y.-H., & He, Y. (2018). Occurrence, distribution and risk assessment of pesticides in a river-reservoir system. *Ecotoxicology and Environmental Safety*, ***166***, 320–327. https://doi.org/10.1016/j.ecoenv.2018.09.107

Chidya, R. C. G., Abdel-dayem, S. M., Takeda, K., & Sakugawa, H. (2018). Spatio-temporal variations of selected pesticide residues in the Kurose River in Higashi-Hiroshima city, Japan. *Journal of Environmental Science and Health, Part B*, ***53***(9), 602–614. https://doi.org/10.1080/03601234.2018.1473972

Chowdhury, A. Z., Jahan, S. A., Islam, M. N., Moniruzzaman, M., Alam, M. K., Zaman, M. A., Karim, N., & Gan, S. H. (2012). Occurrence of organophosphorus and carbamate pesticide residues in surface water samples from the Rangpur district of Bangladesh. *Bulletin of Environmental Contamination and Toxicology*, ***89***(1), 202–207. https://doi.org/10.1007/s00128-012-0641-8

Chowdhury, Md. A. Z., Banik, S., Uddin, B., Moniruzzaman, M., Karim, N., & Gan, S. H. (2012). Organophosphorus and Carbamate Pesticide Residues Detected in Water Samples Collected from Paddy and Vegetable Fields of the Savar and Dhamrai Upazilas in Bangladesh. *International Journal of Environmental Research and Public Health*, ***9***(9), 3318–3329. https://doi.org/10.3390/ijerph9093318

Dalimunthe, K. T., & Hasan, W. (2012). ANALISA KUANTITATIF RESIDU INSEKTISIDA PROFENOFOS PADA CABAI MERAH SEGAR DAN CABAI MERAH GILING DI BEBERAPA PASAR TRADISIONAL KOTA MEDAN TAHUN 2012. *Jurnal Lingkungan dan Keselamatan Kerja*, ***1***(1), 5.

UNIVERSITAS GADJAH MADA
Determination of Freshwater Contamination Caused by Organophosphate Pesticide Residue: A Narrative Review
BARON CHRISTOPHER P, Prof. Dr. apt. Sudibyo Martono, M.S.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Dauda, M. (2020). Quantitative Analysis of Organophosphate Pesticides Residues in Water and Sediment Samples of River Benue, Jimeta Adamawa State. *International Journal of Research and Review*, ***7***(4), 8.

Dieter, C. (2018). *Estimated use of water in the United States in 2015* (10.3133/cir1441). United States Geological Survey. https://www.usgs.gov/publications/estimated-use-water-united-states-2015

Dimzon, I. K. D., Morata, A. S., Müller, J., Yanela, R. K., Lebertz, S., Weil, H., Perez, T. R., Müller, J., Dayrit, F. M., & Knepper, T. P. (2018). Trace organic chemical pollutants from the lake waters of San Pablo City, Philippines by targeted and non-targeted analysis. *Science of The Total Environment*, ***639***, 588–595. https://doi.org/10.1016/j.scitotenv.2018.05.217

Diop, A., Diop, Y. M., Sarr, S. O., Ndiaye, B., Gueye, R., Thiam, K., Cazier, F., & Delattre, F. (2019). Pesticide Contamination of Soil and Groundwater in the Vulnerable Agricultural Zone of the Niayes (Dakar, Senegal). *Analytical Chemistry Letters*, ***9***(2), 168–181. https://doi.org/10.1080/22297928.2019.1613928

Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption, CONSIL, 330 OJ L (1998). http://data.europa.eu/eli/dir/1998/83/oj/eng

Eddleston, M., Buckley, N. A., Eyer, P., & Dawson, A. H. (2008). Management of acute organophosphorus pesticide poisoning. *Lancet*, ***371***(9612), 597–607. https://doi.org/10.1016/S0140-6736(07)61202-1

El-Nahhal, I., & El-Nahhal, Y. (2021). Pesticide residues in drinking water, their potential risk to human health and removal options. *Journal of Environmental Management*, ***299***, 113611. https://doi.org/10.1016/j.jenvman.2021.113611

Es'haghi, Z. (2011). Photodiode Array Detection in Clinical Applications; Quantitative Analyte Assay Advantages, Limitations and Disadvantages. In *Photodiodes—Communications, Bio-Sensings, Measurements and High-Energy Physics*. IntechOpen. https://doi.org/10.5772/18244

European Commission. (2007). *TRIFLURALIN: Risk Profile*. European Commission, DG Environment. https://www3.epa.gov/pesticides/chem_search/cleared_reviews/csr_PC-111401_19-Oct-16.pdf

Fletcher, S., & Chicoine, A. (2017). *Residue Monograph prepared by the meeting of the Joint FAO/WHO Expert Committee on Food Additives (JECFA), 85th Meeting 2017 | Ethion*. https://www.fao.org/3/ca3712en/ca3712en.pdf

UNIVERSITAS GADJAH MADA
Determination of Freshwater Contamination Caused by Organophosphate Pesticide Residue: A Narrative Review
BARON CHRISTOPHER P, Prof. Dr. apt. Sudibyo Martono, M.S.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Fosu-Mensah, B. Y., Okoffo, E. D., Darko, G., & Gordon, C. (2016). Organophosphorus pesticide residues in soils and drinking water sources from cocoa producing areas in Ghana. *Environmental Systems Research*, ***5***(1), 10. https://doi.org/10.1186/s40068-016-0063-4

García Ríos, A., Martínez, A. S., Londoño, Á. L., Restrepo, B., & Landázuri, P. (2020). Determination of organochlorine and organophosphorus residues in surface waters from the coffee zone in Quindío, Colombia. *Journal of Environmental Science and Health, Part B*, ***55***(11), 968–973. https://doi.org/10.1080/03601234.2020.1802185

Garg, T., Hamilton, S. E., Hochard, J. P., Kresch, E. P., & Talbot, J. (2018). (Not so) gently down the stream: River pollution and health in Indonesia. *Journal of Environmental Economics and Management*, ***92***, 35–53. https://doi.org/10.1016/j.jeem.2018.08.011

Garner, F., & Jones, K. (2014). Biological monitoring for exposure to methamidophos: A human oral dosing study. *Toxicology Letters*, ***231***(2), 277–281. https://doi.org/10.1016/j.toxlet.2014.10.008

Gerhards, P., Bons, U., Swazki, J., Szigan, J., & Wertmann, A. (1998). Columns and Carrier Gas. In *GC/MS in Clinical Chemistry* (pp. 13–17). John Wiley & Sons, Ltd. https://doi.org/10.1002/9783527614042.ch3

Gillezeau, C., Lieberman-Cribbin, W., & Taioli, E. (2020). Update on human exposure to glyphosate, with a complete review of exposure in children. *Environmental Health*, ***19***(1), 115. https://doi.org/10.1186/s12940-020-00673-z

Gummin, D. D., Mowry, J. B., Beuhler, M. C., Spyker, D. A., Brooks, D. E., Dibert, K. W., Rivers, L. J., Pham, N. P. T., & Ryan, M. L. (2020). 2019 Annual Report of the American Association of Poison Control Centers' National Poison Data System (NPDS): 37th Annual Report. *Clinical Toxicology*, ***58***(12), 1360–1541. https://doi.org/10.1080/15563650.2020.1834219

Hachimou, Z., Abdourahmane, T. D. B., Fanna, A. G., Yadji, G., Adamou, H., & Adamou, B. (2020). ASSESSMENT OF GROUNDWATER CONTAMINATION BY PESTICIDE RESIDUES IN MARKET GARDEN SITES, DEPARTMENT OF MADAOUA-NIGER. *International Journal of Development Research*, ***10***(9), 8. https://doi.org/10.37118/ijdr.19987.09.2020

Hafiane, F. Z., Bouzaidi, H., Nouayti, N., Tahri, L., El Jarmouni, M., Salahddine, D., & Mohamed, F. (2021). Inventory: The pesticides application and its

Determination of Freshwater Contamination Caused by Organophosphate Pesticide Residue: A Narrative
Review
BARON CHRISTOPHER P, Prof. Dr. apt. Sudibyo Martono, M.S.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

risk assessment in the irrigated perimeter of Tadla-Morocco. *Limnological Review*, ***21***, 15–27. https://doi.org/10.2478/limre-2021-0002

Hamilton, D. J., Ambrus, A., Dieterle, R. M., Felsot, A., Harris, C., Holland, P. T., Katayama, A., Kuriharas, N., Linders, J., Unsworth, J., Wong, S.-S., Racke, K. D., Klein, A., Kuiper, H. A., Wauchope, R. D., Bellin, C. A., Carazo, E., Gonzalez, R. H., Harris, C., & Zeeh, B. W. (2003). Regulatory limits for pesticide residues in water (IUPAC technical report). *Pure and Applied Chemistry*, ***75***, 1123–1155.

Harchegani, A. B., Rahmani, A., Tahmasbpour, E., Kabootaraki, H. B., Rostami, H., & Shahriary, A. (2018). Mechanisms of diazinon effects on impaired spermatogenesis and male infertility. *Toxicology and Industrial Health*, ***34***(9), 653–664. https://doi.org/10.1177/0748233718778665

Harnpicharnchai, K., Chaiear, N., & Charerntanyarak, L. (2013). Residues of organophosphate pesticides used in vegetable cultivation in ambient air, surface water and soil in Bueng Niam Subdistrict, Khon Kaen, Thailand. *The Southeast Asian Journal of Tropical Medicine and Public Health*, ***44***(6), 1088–1097.

Harris, D. C., & Lucy, C. A. (2016). *Quantitative Chemical Analysis* (9th ed.). W. H. Freeman & Company.

Hatmoko, W., Radhika, Amirwandi, S., & Fauzi, M. (2012). *Neraca Ketersediaan dan Kebutuhan Air pada Wilayah Sungai di Indonesia*. Pusat Litbang Sumber Daya Air. https://simantu.pu.go.id/personal/img-post/197810272006041002/post/20210312095728__F__Buku_neraca_air.pdf

He, P., & Aga, D. S. (2019). Comparison of GC-MS/MS and LC-MS/MS for the analysis of hormones and pesticides in surface waters: Advantages and pitfalls. *Analytical Methods*, ***11***(11), 1436–1448. https://doi.org/10.1039/C8AY02774A

Health Canada. (2020). *Guidelines for Canadian Drinking Water Quality*. Health Canada. https://www.canada.ca/content/dam/hc-sc/migration/hc-sc/ewh-semt/alt_formats/pdf/pubs/water-eau/sum_guide-res_recom/summary-table-EN-2020-02-11.pdf

Heidar, H., Seyed Taghi Omid, N., & Abbasali, Z. (2017). Monitoring Organophosphorous Pesticides Residues in the Shahid Rajaei Dam Reservoir, Sari, Iran. *Bulletin of Environmental Contamination and Toxicology*, ***98***(6), 791–797. https://doi.org/10.1007/s00128-017-2080-z

UNIVERSITAS GADJAH MADA
Determination of Freshwater Contamination Caused by Organophosphate Pesticide Residue: A Narrative Review
BARON CHRISTOPHER P, Prof. Dr. apt. Sudibyo Martono, M.S.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Hii, T. M., & Lee, H. K. (2010). Liquid–Liquid Extraction in Environmental Analysis. In *Handbook of Sample Preparation* (pp. 39–51). John Wiley & Sons, Ltd. https://doi.org/10.1002/9780813823621.ch3

Hoffmann, U., & Papendorf, T. (2006). Organophosphate poisonings with parathion and dimethoate. *Intensive Care Medicine*, ***32***(3), 464–468. https://doi.org/10.1007/s00134-005-0051-z

Holt, J. S. (2013). Herbicides. In S. A. Levin (Ed.), *Encyclopedia of Biodiversity (Second Edition)* (pp. 87–95). Academic Press. https://doi.org/10.1016/B978-0-12-384719-5.00070-8

Hossain, M. S., Chowdhury, M. A. Z., Pramanik, Md. K., Rahman, M. A., Fakhruddin, A. N. M., & Alam, M. K. (2015). Determination of selected pesticides in water samples adjacent to agricultural fields and removal of organophosphorus insecticide chlorpyrifos using soil bacterial isolates. *Applied Water Science*, ***5***(2), 171–179. https://doi.org/10.1007/s13201-014-0178-6

IDWSC. (2012). *Indian Standard DRINKING WATER — SPECIFICATION (Second Revision)*. Indian Drinking Water Sectional Committee. http://cgwb.gov.in/Documents/WQ-standards.pdf

Imane, B., Mariam, A., Chakib, N., Ahmed, Z., Samir, E. J., & Karima, E. R. (2016). Pesticide Use Pattern among Farmers in a Rural District of Meknes: Morocco. *Open Access Library Journal*, ***3***(12), 1–19. https://doi.org/10.4236/oalib.1103125

Jepson, P. C. (2001). Pesticides, Uses and Effects of. In S. A. Levin (Ed.), *Encyclopedia of Biodiversity* (pp. 509–522). Elsevier. https://doi.org/10.1016/B0-12-226865-2/00220-0

Jose, A., Selvakumar, R., Peter, J. V., Karthik, G., Fleming, D. H., & Fleming, J. J. (2015). Estimation of Monocrotophos renal elimination half-life in humans. *Clinical Toxicology (Philadelphia, Pa.)*, ***53***(7), 629–632. https://doi.org/10.3109/15563650.2015.1054500

Kadim, M. K., Sudaryanti, S., & Yuli, E. H. (2013). PENCEMARAN RESIDU PESTISIDA DI SUNGAI UMBULREJO KECAMATAN DAMPIT KABUPATEN MALANG (Pollution of Pesticide Residues in The Umbulrejo River District Dampit, Malang). *Jurnal Manusia dan Lingkungan*, ***20***(3), 262–268. https://doi.org/10.22146/jml.18493

Kementerian Pertanian Indonesia. (2001). *Ketetapan Menteri Pertanian Nomor 434.1/kpts/TP.270/7/2001*. Kementerian Pertanian Indonesia. http://perundangan.pertanian.go.id/admin/file/SK-293-03.pdf

UNIVERSITAS GADJAH MADA
Determination of Freshwater Contamination Caused by Organophosphate Pesticide Residue: A Narrative Review
BARON CHRISTOPHER P, Prof. Dr. apt. Sudibyo Martono, M.S.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Kuo, J., Soon, A. Y., Garrett, C., Wan, M. T. K., & Pasternak, J. P. (2012). Agricultural pesticide residues of farm runoff in the Okanagan Valley, British Columbia, Canada. *Journal of Environmental Science and Health, Part B*, ***47***(4), 250–261. https://doi.org/10.1080/03601234.2012.636588

LaCourse, M., & LaCourse, W. (2017). General instrumentation in HPLC. In *Liquid Chromatography: Fundamentals and Instrumentation: Second Edition* (pp. 417–429). Elsevier. https://doi.org/10.1016/B978-0-12-805393-5.00017-8

Lamers, M., Anyusheva, M., La, N., Nguyen, V. V., & Streck, T. (2011). Pesticide Pollution in Surface- and Groundwater by Paddy Rice Cultivation: A Case Study from Northern Vietnam. *CLEAN – Soil, Air, Water*, *39*(4), 356–361. https://doi.org/10.1002/clen.201000268

Lari, S. Z., Khan, N. A., Gandhi, K. N., Meshram, T. S., & Thacker, N. P. (2014). Comparison of pesticide residues in surface water and ground water of agriculture intensive areas. *Journal of Environmental Health Science and Engineering*, ***12***(1), 11. https://doi.org/10.1186/2052-336X-12-11

Levy, S., & Perron, M. (2016). *Profenofos: Human Health Draft Risk Assessment (DRA)*. U.S. Environmental Protection Agency. https://www3.epa.gov/pesticides/chem_search/cleared_reviews/csr_PC-111401_19-Oct-16.pdf

Llompart, M., Garcia-Jares, C., Celeiro, M., & Dagnac, T. (2019). Extraction | Microwave-Assisted Extraction☆. In P. Worsfold, C. Poole, A. Townshend, & M. Miró (Eds.), *Encyclopedia of Analytical Science (Third Edition)* (pp. 67–77). Academic Press. https://doi.org/10.1016/B978-0-12-409547-2.14442-7

Loague, K., & Corwin, D. L. (2006). Point and NonPoint Source Pollution. In *Encyclopedia of Hydrological Sciences*. John Wiley & Sons, Ltd. https://doi.org/10.1002/0470848944.hsa097

Loewy, R. M., Monza, L. B., Kirs, V. E., & Savini, M. C. (2011). Pesticide distribution in an agricultural environment in Argentina. *Journal of Environmental Science and Health, Part B*, ***46***(8), 662–670. https://doi.org/10.1080/03601234.2012.592051

Luque de Castro, M. D., & Álvarez-Sánchez, B. (2008). Chapter 9 - Membrane-Based Separation Techniques: Liquid–Liquid Extraction and Filtration. In S. D. Kolev & I. D. Mckelvie (Eds.), *Comprehensive Analytical Chemistry* (Vol. 54, pp. 235–264). Elsevier. https://doi.org/10.1016/S0166-526X(08)00609-0

UNIVERSITAS GADJAH MADA
Determination of Freshwater Contamination Caused by Organophosphate Pesticide Residue: A Narrative Review
BARON CHRISTOPHER P, Prof. Dr. apt. Sudibyo Martono, M.S.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Masiá, A., Campo, J., Navarro-Ortega, A., Barceló, D., & Picó, Y. (2015). Pesticide monitoring in the basin of Llobregat River (Catalonia, Spain) and comparison with historical data. *Science of The Total Environment*, ***503–504***, 58–68. https://doi.org/10.1016/j.scitotenv.2014.06.095

Maurya, P. K., & Malik, D. S. (2016). Accumulation and distribution of organochlorine and organophosphorus pesticide residues in water, sediments and fishes, Heteropneustis fossilis and Puntius ticto from Kali River, India. *Journal of Toxicology and Environmental Health Sciences*, ***8***(5), 30–40. https://doi.org/10.5897/JTEHS2016.0367

Mekonen, S., Argaw, R., Simanesew, A., Houbraken, M., Senaeve, D., Ambelu, A., & Spanoghe, P. (2016). Pesticide residues in drinking water and associated risk to consumers in Ethiopia. *Chemosphere*, ***162***, 252–260. https://doi.org/10.1016/j.chemosphere.2016.07.096

Miller Jr., G. T., & Spoolman, S. E. (2012). *Sustaining the Earth* (10th ed.). Brooks/Cole.

Miodovnik, A. (2019). Prenatal Exposure to Industrial Chemicals and Pesticides and Effects on Neurodevelopment☆. In J. Nriagu (Ed.), *Encyclopedia of Environmental Health (Second Edition)* (pp. 342–352). Elsevier. https://doi.org/10.1016/B978-0-12-409548-9.11008-5

Mondal, R., Mukherjee, A., Biswas, S., & Kole, R. K. (2018). GC-MS/MS determination and ecological risk assessment of pesticides in aquatic system: A case study in Hooghly River basin in West Bengal, India. *Chemosphere*, ***206***, 217–230. https://doi.org/10.1016/j.chemosphere2018.04.168

Montuori, P., Aurino, S., Garzonio, F., Sarnacchiaro, P., Polichetti, S., Nardone, A., & Triassi, M. (2016). Estimates of Tiber River organophosphate pesticide loads to the Tyrrhenian Sea and ecological risk. *Science of The Total Environment*, ***559***, 218–231. https://doi.org/10.1016/j.scitotenv.2016.03.156

Musa, S., Gichuki, J. W., Raburu, P. O., & Aura, C. M. (2011). Risk assessment for organochlorines and organophosphates pesticide residues in water and Sediments from lower Nyando/Sondu-Miriu river within Lake Victoria Basin, Kenya. *Lakes & Reservoirs: Science, Policy and Management for Sustainable Use*, ***16***(4), 273–280. https://doi.org/10.1111/j.1440-1770.2011.00486.x

Mwevura, H., Kylin, H., Vogt, T., & Bouwman, H. (2021). Dynamics of organochlorine and organophosphate pesticide residues in soil, water, and

UNIVERSITAS
GADJAH MADA
Determination of Freshwater Contamination Caused by Organophosphate Pesticide Residue: A Narrative Review
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sediment from the Rufiji River Delta, Tanzania. *Regional Studies in Marine Science*, ***41***, 101607. https://doi.org/10.1016/j.rsma.2020.101607

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 991, Parathion*. https://pubchem.ncbi.nlm.nih.gov/compound/991

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 1982, Acephate*. https://pubchem.ncbi.nlm.nih.gov/compound/1982

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 2268, Azinphos-methyl*. https://pubchem.ncbi.nlm.nih.gov/compound/2268

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 2730, Chlorpyrifos*. https://pubchem.ncbi.nlm.nih.gov/compound/Chlorpyrifos.

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 3017, Diazinon*. https://pubchem.ncbi.nlm.nih.gov/compound/3017

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 3039, Dichlorvos*. https://pubchem.ncbi.nlm.nih.gov/compound/3039

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 3082, Dimethoate*. https://pubchem.ncbi.nlm.nih.gov/compound/3082

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 3120, Diuron*. https://pubchem.ncbi.nlm.nih.gov/compound/3120

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 3286, Ethion*. https://pubchem.ncbi.nlm.nih.gov/compound/3286

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 3346, Fenthion*. https://pubchem.ncbi.nlm.nih.gov/compound/3346

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 3496, Glyphosate.* https://pubchem.ncbi.nlm.nih.gov/compound/3496

UNIVERSITAS GADJAH MADA
Determination of Freshwater Contamination Caused by Organophosphate Pesticide Residue: A Narrative Review
BARON CHRISTOPHER P, Prof. Dr. apt. Sudibyo Martono, M.S.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 4004, Malathion*. https://pubchem.ncbi.nlm.nih.gov/compound/4004

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 4096, Methamidophos*. https://pubchem.ncbi.nlm.nih.gov/compound/4096

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 4130, Methyl parathion*. https://pubchem.ncbi.nlm.nih.gov/compound/4130

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 4169, Metolachlor*. https://pubchem.ncbi.nlm.nih.gov/compound/4169

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 4790, Phorate*. https://pubchem.ncbi.nlm.nih.gov/compound/4790

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 4793, Phosalone*. https://pubchem.ncbi.nlm.nih.gov/compound/4793

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 5569, Trifluralin*. https://pubchem.ncbi.nlm.nih.gov/compound/5569

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 7328, Dichlofenthion*. https://pubchem.ncbi.nlm.nih.gov/compound/7328

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 10107, Chlorfenvinphos*. https://pubchem.ncbi.nlm.nih.gov/compound/10107

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 13709, Methidathion*. https://pubchem.ncbi.nlm.nih.gov/compound/13709

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 14210, Omethoate*. https://pubchem.ncbi.nlm.nih.gov/compound/14210

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 17531, Azinphos-ethyl*. https://pubchem.ncbi.nlm.nih.gov/compound/17531

UNIVERSITAS GADJAH MADA
Determination of Freshwater Contamination Caused by Organophosphate Pesticide Residue: A Narrative Review
BARON CHRISTOPHER P, Prof. Dr. apt. Sudibyo Martono, M.S.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 20965, Bromophos-ethyl*. https://pubchem.ncbi.nlm.nih.gov/compound/20965

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 21803, Chlorpyrifos-methyl*. https://pubchem.ncbi.nlm.nih.gov/compound/21803

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 26124, Quinalphos*. https://pubchem.ncbi.nlm.nih.gov/compound/26124

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 31200, Fenitrothion*. https://pubchem.ncbi.nlm.nih.gov/compound/31200

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 32184, Triazophos*. https://pubchem.ncbi.nlm.nih.gov/compound/32184

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 34526, Pirimiphos-methyl*. https://pubchem.ncbi.nlm.nih.gov/compound/34526

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 38779, Profenofos*. https://pubchem.ncbi.nlm.nih.gov/compound/38779

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 90479, Isocarbophos*. https://pubchem.ncbi.nlm.nih.gov/compound/90479

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 5371560, Dicrotophos*. https://pubchem.ncbi.nlm.nih.gov/compound/5371560

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 5371562, Monocrotophos*. https://pubchem.ncbi.nlm.nih.gov/compound/5371562

National Center for Biotechnology Information. (2022). *PubChem Compound Summary for CID 6433329, Dimethylvinphos.* https://pubchem.ncbi.nlm.nih.gov/compound/6433329

NHMRC. (2011). *The Australian Drinking Water Guidelines*. National Health and Medical Research Council, Australia. https://www.nhmrc.gov.au/about-us/publications/australian-drinking-water-guidelines

UNIVERSITAS GADJAH MADA
Determination of Freshwater Contamination Caused by Organophosphate Pesticide Residue: A Narrative Review
BARON CHRISTOPHER P, Prof. Dr. apt. Sudibyo Martono, M.S.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Nugroho, B. Y. H., Wulandari, S. Y., & Ridho, A. (2015). Analisis Residu Pestisida Organofosfat di Perairan Mlonggo Kabupaten Jepara. *Jurnal Oseanografi*, ***4***(3), 541–544.

NZMoH. (2019). *Drinking-Water Standards for New Zealand 2005*. New Zealand Ministry of Health. https://www.taumataarowai.govt.nz/assets/dwsnz-2005-revised-mar2019.docx

Otieno, P., Okinda Owuor, P., Lalah, J. O., Pfister, G., & Schramm, K.-W. (2015). Monitoring the occurrence and distribution of selected organophosphates and carbamate pesticide residues in the ecosystem of Lake Naivasha, Kenya. *Toxicological & Environmental Chemistry*, ***97***(1), 51–61. https://doi.org/10.1080/02772248.2014.942309

Pan, H., Lei, H., He, X., Xi, B., & Xu, Q. (2019). Spatial distribution of organochlorine and organophosphorus pesticides in soil-groundwater systems and their associated risks in the middle reaches of the Yangtze River Basin. *Environmental Geochemistry and Health*, ***41***(4), 1833–1845. https://doi.org/10.1007/s10653-017-9970-1

Papadakis, E. N., Vryzas, Z., Kotopoulou, A., Kintzikoglou, K., Makris, K. C., & Papadopoulou-Mourkidou, E. (2015). A pesticide monitoring survey in rivers and lakes of northern Greece and its human and ecotoxicological risk assessment. *Ecotoxicology and Environmental Safety*, ***116***, 1–9. https://doi.org/10.1016/j.ecoenv.2015.02.033

Papadakis, E.-N., Tsaboula, A., Kotopoulou, A., Kintzikoglou, K., Vryzas, Z., & Papadopoulou-Mourkidou, E. (2015). Pesticides in the surface waters of Lake Vistonis Basin, Greece: Occurrence and environmental risk assessment. *Science of The Total Environment*, ***536***, 793–802. https://doi.org/10.1016/j.scitotenv.2015.07.099

Patel, S., & Sangeeta, S. (2019). Pesticides as the drivers of neuropsychotic diseases, cancers, and teratogenicity among agro-workers as well as general public. *Environmental Science and Pollution Research International*, ***26***(1), 91–100. https://doi.org/10.1007/s11356-018-3642-2

Perera-Rios, J., Ruiz-Suarez, E., Bastidas-Bastidas, P. de J., May-Euán, F., Uicab-Pool, G., Leyva-Morales, J. B., Reyes-Novelo, E., & Pérez-Herrera, N. (2021). Agricultural pesticide residues in water from a karstic aquifer in Yucatan, Mexico, pose a risk to children's health. *International Journal of Environmental Health Research*, ***0***(0), 1–15. https://doi.org/10.1080/09603123.2021.1950652

Determination of Freshwater Contamination Caused by Organophosphate Pesticide Residue: A Narrative
Review
BARON CHRISTOPHER P, Prof. Dr. apt. Sudibyo Martono, M.S.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Peter, J. V., Sudarsan, T. I., & Moran, J. L. (2014). Clinical features of organophosphate poisoning: A review of different classification systems and approaches. *Indian Journal of Critical Care Medicine : Peer-Reviewed, Official Publication of Indian Society of Critical Care Medicine*, ***18***(11), 735–745. https://doi.org/10.4103/0972-5229.144017

Picó, Y., Alvarez-Ruiz, R., Alfarhan, A. H., El-Sheikh, M. A., Alshahrani, H. O., & Barceló, D. (2020). Pharmaceuticals, pesticides, personal care products and microplastics contamination assessment of Al-Hassa irrigation network (Saudi Arabia) and its shallow lakes. *Science of The Total Environment*, ***701***, 135021. https://doi.org/10.1016/j.scitotenv.2019.135021

Radhika, Firmansyah, R., & Hatmoko, W. (2017). Perhitungan Ketersediaan Air Permukaan di Indonesia Berdasarkan Data Satelit. *Jurnal Sumber Daya Air*, ***13***(2), 115–130.

Rahman, Md. M., Abd El-Aty, A. m., Choi, J.-H., Shin, H.-C., Shin, S. C., & Shim, J.-H. (2015). Basic Overview on Gas Chromatography Columns. In *Analytical Separation Science* (pp. 823–834). John Wiley & Sons, Ltd. https://doi.org/10.1002/9783527678129.assep024

Rawa-Adkonis, M., Wolska, L., & Namieśnik, J. (2006). Analytical Procedures for PAH and PCB Determination in Water Samples—Error Sources. *Critical Reviews in Analytical Chemistry*, ***36***. https://doi.org/10.1080/10408340600713645

Ridwan, M. (2018, June 6). *Ketersediaan Air Tanah di Indonesia Mei 2018 | BMKG*. BMKG | Badan Meteorologi, Klimatologi, dan Geofisika. https://www.bmkg.go.id/berita/?p=ketersediaan-air-tanah-di-indonesia-mei-2018&tag=&lang=ID

Robb, E. L., & Baker, M. B. (2022). Organophosphate Toxicity. In *StatPearls*. StatPearls Publishing. http://www.ncbi.nlm.nih.gov/books/NBK470430/

Roberts, J. R., & Reigart, J. R. (2013). *Recognition and Management of Pesticide Poisonings: Sixth Edition*. U.S. Environmental Protection Agency.

Safari, M., Ahmadfazeli, A., Vatandoost, H., Karimaee, M., Panahi, D., Shokri, M., Moradian, M., & Soleimani, Z. (2020). Investigating on the Residue of Organophosphate Pesticides in the Water of the Hablehrood River, Garmsar, Iran. *Journal of Arthropod-Borne Diseases*, ***14***(3), 250–260. https://doi.org/10.18502/jad.v14i3.4558

Schweitzer, L., & Noblet, J. (2018). Chapter 3.6—Water Contamination and Pollution. In B. Török & T. Dransfield (Eds.), *Green Chemistry* (pp. 261–290). Elsevier. https://doi.org/10.1016/B978-0-12-809270-5.00011-X

UNIVERSITAS GADJAH MADA
Determination of Freshwater Contamination Caused by Organophosphate Pesticide Residue: A Narrative Review
BARON CHRISTOPHER P, Prof. Dr. apt. Sudibyo Martono, M.S.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Sharma, A., Kumar, V., Shahzad, B., Tanveer, M., Sidhu, G. P. S., Handa, N., Kohli, S. K., Yadav, P., Bali, A. S., Parihar, R. D., Dar, O. I., Singh, K., Jasrotia, S., Bakshi, P., Ramakrishnan, M., Kumar, S., Bhardwaj, R., & Thukral, A. K. (2019). Worldwide pesticide usage and its impacts on ecosystem. *SN Applied Sciences*, ***1***(11), 1446. https://doi.org/10.1007/s42452-019-1485-1

Shi, N., Lai, Z. W., Wu, H. Q., & Liu, Y. G. (1988). The toxicokinetics of methyl-ISP in rats. *Journal of Tongji Medical University = Tong Ji Yi Ke Da Xue Xue Bao*, *8*(2), 78–82. https://doi.org/10.1007/BF02887798

Shi, R., Zhao, J., Shi, W., Song, S., & Wang, C. (2020). Comprehensive Assessment of Water Quality and Pollution Source Apportionment in Wuliangsuhai Lake, Inner Mongolia, China. *International Journal of Environmental Research and Public Health*, ***17***(14), 5054. https://doi.org/10.3390/ijerph17145054

Singh, P. K., Singh, R. P., Singh, P., & Singh, R. L. (2019). Chapter 2 - Food Hazards: Physical, Chemical, and Biological. In R. L. Singh & S. Mondal (Eds.), *Food Safety and Human Health* (pp. 15–65). Academic Press. https://doi.org/10.1016/B978-0-12-816333-7.00002-3

Skoog, D. A., West, D. M., Holler, F. J., & Crouch, S. R. (2014). *Fundamentals of Analytical Chemistry* (9th ed.). Brooks/Cole.

Snyder, L., Kirkland, J., & Dolan, J. (2010). *Introduction to Modern Liquid Chromatography* (3rd ed.). John Wiley & Sons, Ltd.

Stachniuk, A., & Fornal, E. (2016). Liquid Chromatography-Mass Spectrometry in the Analysis of Pesticide Residues in Food. *Food Analytical Methods*, ***9***(6), 1654–1665. https://doi.org/10.1007/s12161-015-0342-0

Sumon, K. A., Rashid, H., Peeters, E. T. H. M., Bosma, R. H., & Van den Brink, P. J. (2018). Environmental monitoring and risk assessment of organophosphate pesticides in aquatic ecosystems of north-west Bangladesh. *Chemosphere*, ***206***, 92–100. https://doi.org/10.1016/j.chemosphere.2018.04.167

Suter II, G., Cormier, S., Schofield, K., Barbour, C., & Diamond, J. (2015, November 4). *Insecticides* [Data and Tools]. US EPA. https://www.epa.gov/caddis-vol2/insecticides

Syafrudin, M., Kristanti, R. A., Yuniarto, A., Hadibarata, T., Rhee, J., Al-onazi, W. A., Algarni, T. S., Almarri, A. H., & Al-Mohaimeed, A. M. (2021). Pesticides in Drinking Water—A Review. *International Journal of*

UNIVERSITAS GADJAH MADA
Determination of Freshwater Contamination Caused by Organophosphate Pesticide Residue: A Narrative Review
BARON CHRISTOPHER P, Prof. Dr. apt. Sudibyo Martono, M.S.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Environmental Research and Public Health, ***18***(2), 468. https://doi.org/10.3390/ijerph18020468

Teklu, B. M., Adriaanse, P. I., Ter Horst, M. M. S., Deneer, J. W., & Van den Brink, P. J. (2015). Surface water risk assessment of pesticides in Ethiopia. *Science of The Total Environment*, ***508***, 566–574. https://doi.org/10.1016/j.scitotenv.2014.11.049

Thinh, N. Q., Phu, T. M., Douny, C., Phuong, N. T., Huong, D. T. T., Kestemont, P., & Scippo, M.-L. (2018). Bioconcentration and half-life of quinalphos pesticide in rice-fish integration system in the Mekong Delta, Vietnam. *Journal of Environmental Science and Health, Part B*, ***53***(1), 35–41. https://doi.org/10.1080/03601234.2017.1371551

Thomatou, A.-A., Zacharias, I., Hela, D., & Konstantinou, I. (2013). Determination and risk assessment of pesticide residues in lake Amvrakia (W. Greece) after agricultural land use changes in the lake's drainage basin. *International Journal of Environmental Analytical Chemistry*, ***93***(7), 780–799. https://doi.org/10.1080/03067319.2012.656099

Tuzimski, T., & Sherma, J. (2015). *High Performance Liquid Chromatography in Pesticide Residue Analysis*. CRC Press. https://www.routledge.com/High-Performance-Liquid-Chromatography-in-Pesticide-Residue-Analysis/Tuzimski-Sherma/p/book/9780367575724

United Nations. (2010). *Resolution 64/292 The Human Right to Water and Sanitation*. UN General Assembly. https://undocs.org/pdf?symbol=en/a/res/64/292

Urkude, R., Kochhar, S., & Dhurvey, V. (2015). QuEChERS METHOD: A MODERN TECHNIQUE FOR ANALYSIS OF PESTICIDE RESIDUES IN FOOD. *International Journal of Researches in Social Science and Information Studies (IJRSSIS)*, ***1***, 142–147.

US EPA. (2007). *Method 1699: Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS*. U.S. Environmental Protection Agency. https://www.epa.gov/sites/default/files/2015-10/documents/method_1699_2007.pdf

Varca, L. M. (2012). Pesticide residues in surface waters of Pagsanjan-Lumban catchment of Laguna de Bay, Philippines. *Agricultural Water Management*, ***106***, 35–41. https://doi.org/10.1016/j.agwat.2011.08.006

Wahyuni, S., Indratin, Poniman, & Ardiwinata, A. (2019). Identifikasi Cemaran Insektisida Profenofos dari Lahan Bawang Merah di Kabupaten Brebes. *Jurnal Litbang Provinsi Jawa Tengah*, ***17***(2).

UNIVERSITAS GADJAH MADA
Determination of Freshwater Contamination Caused by Organophosphate Pesticide Residue: A Narrative Review
BARON CHRISTOPHER P, Prof. Dr. apt. Sudibyo Martono, M.S.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Walker, D. B., Baumgartner, D. J., Gerba, C. P., & Fitzsimmons, K. (2019). Chapter 16—Surface Water Pollution. In M. L. Brusseau, I. L. Pepper, & C. P. Gerba (Eds.), *Environmental and Pollution Science (Third Edition)* (pp. 261–292). Academic Press. https://doi.org/10.1016/B978-0-12-814719-1.00016-1

Wan, Y., Tran, T. M., Nguyen, V. T., Wang, A., Wang, J., & Kannan, K. (2021). Neonicotinoids, fipronil, chlorpyrifos, carbendazim, chlorotriazines, chlorophenoxy herbicides, bentazon, and selected pesticide transformation products in surface water and drinking water from northern Vietnam. *Science of The Total Environment*, ***750***, 141507. https://doi.org/10.1016/j.scitotenv.2020.141507

Wang, J., Teng, Y., Zhai, Y., Yue, W., & Pan, Z. (2022). Spatiotemporal distribution and risk assessment of organophosphorus pesticides in surface water and groundwater on the North China Plain, China. *Environmental Research*, ***204***, 112310. https://doi.org/10.1016/j.envres.2021.112310

Water Science School. (2019, October 25). *The distribution of water on, in, and above the Earth*. U.S. Geological Survey. https://www.usgs.gov/media/images/distribution-water-and-above-earth

Waters. (2022). *How Does High Performance Liquid Chromatography Work? | Waters*. https://www.waters.com/waters/en_US/How-Does-High-Performance-Liquid-Chromatography-Work%3F/nav.htm?cid=10049055&locale=en_US

Wee, S. Y., Omar, T. F. T., Aris, A. Z., & Lee, Y. (2016). Surface Water Organophosphorus Pesticides Concentration and Distribution in the Langat River, Selangor, Malaysia. *Exposure and Health*, ***8***(4), 497–511. https://doi.org/10.1007/s12403-016-0214-x

WHO. (2017). *Guidelines for Drinking-Water Quality Fourth Edition*.

Xie, J., Liu, T., Song, G., Hu, Y., & Deng, C. (2013). Simultaneous Analysis of Organophosphorus Pesticides in Water by Magnetic Solid-Phase Extraction Coupled with GC–MS. *Chromatographia*, ***76***(9), 535–540. https://doi.org/10.1007/s10337-013-2408-8

Xu, L., Granger, C., Dong, H., Mao, Y., Duan, S., Li, J., & Qiang, Z. (2020). Occurrences of 29 pesticides in the Huangpu River, China: Highest ecological risk identified in Shanghai metropolitan area. *Chemosphere*, ***251***, 126411. https://doi.org/10.1016/j.chemosphere.2020.126411

Yang, X., Imasaka, T., & Imasaka, T. (2018). Determination of Pesticides by Gas Chromatography Combined with Mass Spectrometry Using Femtosecond Lasers Emitting at 267, 400, and 800 nm as the Ionization Source. *Analytical*

UNIVERSITAS
GADJAH MADA
Determination of Freshwater Contamination Caused by Organophosphate Pesticide Residue: A Narrative Review
BARON CHRISTOPHER P, Prof. Dr. apt. Sudibyo Martono, M.S.
Universitas Gadjah Mada, 2022 | Diunduh dari http://etd.repository.ugm.ac.id/

Chemistry, ***90***(7), 4886–4893. https://doi.org/10.1021/acs.analchem.8b00537

Youssef, L., Younes, G., Kouzayha, A., & Jaber, F. (2015). Occurrence and levels of pesticides in South Lebanon water. *Chemical Speciation & Bioavailability*, ***27***(2), 62–70. https://doi.org/10.1080/09542299.2015.1023092

Zainuddin, A. H., Wee, S. Y., & Aris, A. Z. (2020). Occurrence and potential risk of organophosphorus pesticides in urbanised Linggi River, Negeri Sembilan, Malaysia. *Environmental Geochemistry and Health*, ***42***(11), 3703–3715. https://doi.org/10.1007/s10653-020-00604-4

Zhang, Q.-W., Lin, L.-G., & Ye, W.-C. (2018). Techniques for extraction and isolation of natural products: A comprehensive review. *Chinese Medicine*, ***13***(1), 20. https://doi.org/10.1186/s13020-018-0177-x

Zhang, Y., Qin, P., Lu, S., Liu, X., Zhai, J., Xu, J., Wang, Y., Zhang, G., Liu, X., & Wan, Z. (2021). Occurrence and risk evaluation of organophosphorus pesticides in typical water bodies of Beijing, China. *Environmental Science and Pollution Research*, ***28***(2), 1454–1463. https://doi.org/10.1007/s11356-020-10288-z

Zhou, Y., Wu, J., Wang, B., Duan, L., Zhang, Y., Zhao, W., Wang, F., Sui, Q., Chen, Z., Xu, D., Li, Q., & Yu, G. (2020). Occurrence, source and ecotoxicological risk assessment of pesticides in surface water of Wujin District (northwest of Taihu Lake), China. *Environmental Pollution*, ***265***, 114953. https://doi.org/10.1016/j.envpol.2020.114953

Zubrod, J. P., Bundschuh, M., Arts, G., Brühl, C. A., Imfeld, G., Knäbel, A., Payraudeau, S., Rasmussen, J. J., Rohr, J., Scharmüller, A., Smalling, K., Stehle, S., Schulz, R., & Schäfer, R. B. (2019). Fungicides: An Overlooked Pesticide Class? *Environmental Science & Technology*, ***53***(7), 3347–3365. https://doi.org/10.1021/acs.est.8b04392