

DAFTAR PUSTAKA

- Abbas, M.N., Al-Tameemi, I.M., Hasan, M.B. dan Al-Madhhachi, A.S.T., (2021) Chemical removal of cobalt and lithium in contaminated soils using promoted white eggshells with different catalysts, *South African Journal of Chemical Engineering*, 35(February 2020), hal. 23–32.
- Abdel-sabour, M.F., Atomic, E. dan Authority, E., (2000) Studies of Some Parameters Affecting The Efficiency and Accuracy of The Neutron Activation Analysis Technique, in *Seventh Conference of Nuclear Sciences and Applications*, hal. 879–884.
- Abdellatif, M.A., Hassan, F.O., Rashed, H.S.A., Baroudy, A.A. El, Mohamed, E.S., Kucher, D.E., Abd-Elmabod, S.K., Shokr, M.S. dan Abuzaid, A.S., (2023) Assessing Soil Organic Carbon Pool for Potential Climate-change Mitigation in Agricultural Soils - A Case Study Fayoum Depression, Egypt, *Land*, 12(1755).
- Abdul Hamid, Z., Ishak, I., Lubis, S.H., Mohammad, N., Othman, H., Mohd Saat, N.Z., Ghazali, A.R., Abdul Rahim, S.Z. dan Mohd Noor, M.R., (2017) Evaluation of Trace Elements in the Nails and Hair of Farmers Exposed to Pesticides and Fertilizers, *Journal of Agricultural Science*, 9(13), hal. 79.
- Aboubakar, A., Douaik, A., Mewouo, Y.C.M., Madong, R.C.B.A., Dahchour, A. dan El Hajjaji, S., (2021) Determination of background values and assessment of pollution and ecological risk of heavy metals in urban agricultural soils of Yaoundé, Cameroon, *Journal of Soils and Sediments*, 21(3), hal. 1437–1454.
- Abuzaid, A.S. dan Jahin, H.S., (2021) Implications of irrigation water quality on shallow groundwater in the Nile Delta of Egypt: A human health risk prospective, *Environmental Technology and Innovation*, 22, hal. 101383.
- Adam, M., Ibrahim, I., Sulieman, M., Zeraatpisheh, M., Mishra, G. dan Brevik, E.C., (2021) Predicting Soil Cation Exchange Capacity in Entisols with Divergent Textural Classes: The Case of Northern Sudan Soils, *Air, Soil and Water Research*, 14.
- Adamczyk-Szabela, D. dan Wolf, W.M., (2022) The Impact of Soil pH on Heavy Metals Uptake and Photosynthesis Efficiency in *Melissa officinalis*, *Taraxacum officinalis*, *Ocimum basilicum*, *Molecules*, 27(15).
- Adamo, P., Iavazzo, P., Albanese, S., Agrelli, D., De Vivo, B. dan Lima, A., (2014) Bioavailability and soil-to-plant transfer factors as indicators of potentially toxic element contamination in agricultural soils, *Science of the Total Environment*, 500–501, hal. 11–22.
- Adhikari, T., Gowda, R.C., Wanjari, R.H. dan Singh, M., (2021) Impact of Continuous Fertilization on Heavy Metals Content in Soil and Food Grains under 25 Years of Long-Term Fertilizer Experiment, *Communications in Soil Science and Plant Analysis*, 52(4), hal. 389–405.
- Adiloglu, S., Acikgoz, F.E., Belliturk, K., Gurgan, M., Solmaz, Y. dan Adiloglu,

- A., (2021) The effects of increasing amounts of vermicompost and a fixed amount of *Rhodobacter capsulatus* applications on macro and micro elements of plant and soil samples, *Journal of Plant Nutrition*, 44(19), hal. 2876–2884.
- Adiyoga, W., Khaririyatun, N. dan Murtiningsih, R., (2022) Criteria of pesticide selection in shallot pestdisease control in Brebes Regency, Central Java, *E3S Web of Conferences*, 361.
- Ahmadov, M., Humbatov, F., Mammadzada, S., Balayev, V., Ibadov, N. dan Ibrahimov, Q., (2020) Assessment of heavy metal pollution in coastal sediments of the western Caspian Sea, *Environmental Monitoring and Assessment*, 192(8).
- Ahmadpour, Mohsen, Sinkakarimi, M.H., Arabi, M.H.G., Abdollahpour, M., Mansour, A., Asgharpour, A., Islami, I., Ahmadpour, Mousa, Hosseini, S.H., Taleshi, M.S., Levengood, J. dan Hapeman, P., (2022) Minerals and trace elements in a long term paddy soil-rice system in the north of Iran: Human health and ecological risk assessment, *Journal of Food Composition and Analysis*, 110(November 2021), hal. 104573.
- Ahmed, A.S.S., Rahman, M., Sultana, S., Babu, S.M.O.F. dan Sarker, M.S.I., (2019) Bioaccumulation and heavy metal concentration in tissues of some commercial fishes from the Meghna River Estuary in Bangladesh and human health implications, *Marine Pollution Bulletin*, 145(June), hal. 436–447.
- Ahmed, M., Matsumoto, M., Ozaki, A., Van Thinh, N. dan Kurosawa, K., (2019) Heavy metal contamination of irrigation water, soil, and vegetables and the difference between dry and wet seasons near a multi-industry zone in Bangladesh, *Water (Switzerland)*, 11(3).
- AL-Huqail, A.A., Kumar, P., Abou Fayssal, S., Adelodun, B., Širić, I., Goala, M., Choi, K.S., Taher, M.A., El-Kholy, A.S. dan Eid, E.M., (2023) Sustainable Use of Sewage Sludge for Marigold (*Tagetes erecta* L.) Cultivation: Experimental and Predictive Modeling Studies on Heavy Metal Accumulation, *Horticulturae*, 9(4).
- Albuquerque, K.F. de M., Silva, M.H.L., Azevedo, J.W. de J., Soares, L.S., Bandeira, A.M., Soares, L.A. dan Castro, A.C.L. de, (2023) Assessment of water quality and concentration of heavy metals in fishes in the estuary of the Perizes River, Gulf of Maranhão, Brazil, *Marine Pollution Bulletin*, 186(June 2022), hal. 114420.
- Alejandro, S., Höller, S., Meier, B. dan Peiter, E., (2020) Manganese in plants: from acquisition to subcellular allocation, *Frontiers in Plant Science*, 11, hal. 1–23.
- Alengebawy, A., Abdelkhalek, S.T., Qureshi, S.R. dan Wang, M.-Q., (2021) *Heavy metals and pesticides toxicity in agricultural soil and plants : Ecological risks and human health implications*, *Toxics*.
- Ali, H., Khan, E. dan Ilahi, I., (2019) Environmental chemistry and ecotoxicology of hazardous heavy metals: Environmental persistence , toxicity , and bioaccumulation, *Journal of Chemistry*, hal. 1–14.
- Ali, M.M., Ali, M.L., Proshad, R., Islam, S., Rahman, Z. dan Kormoker, T., (2020)

- Assessment of Trace Elements in the Demersal Fishes of a Coastal River in Bangladesh: a Public Health Concern, *Thalassas*, 36(2), hal. 641–655.
- Ali, M.U., Wang, C., Li, Y., Li, R., Yang, S., Ding, L., Feng, L., Wang, B., Li, P. dan Wong, M.H., (2023) Heavy metals in fish, rice, and human hair and health risk assessment in Wuhan city, central China, *Environmental Pollution*, 328(3), hal. 121604.
- Aliya, G., (2022) *Improving Shallot (Allium cepa Aggregatum group) Production in Acidic Soils in West Java , Indonesia*. Massey University.
- de Almeida, C.C., Baião, D. dos S., Rodrigues, P. de A., Saint’Pierre, T.D., Hauser-Davis, R.A., Leandro, K.C., Paschoalin, V.M.F., da Costa, M.P. dan Conte-Junior, C.A., (2022) Toxic Metals and Metalloids in Infant Formulas Marketed in Brazil, and Child Health Risks According to the Target Hazard Quotients and Target Cancer Risk, *International Journal of Environmental Research and Public Health*, 19(18), hal. 1–15.
- Alnuwaiser, M.A., (2019) An analytical survey of trace heavy elements in insecticides, *International Journal of Analytical Chemistry*, hal. 1–11.
- Alsabbagh, A., Khalayleh, L., Dbissi, M. dan Landsberger, S., (2017) An assessment study in the determination of chemical elements in sediments and fish in the Zarka River and King Talal Dam, Jordan, *Journal of Radioanalytical and Nuclear Chemistry*, 314(1), hal. 141–147.
- Amwele, H.R., Motsei, L., Kalumbu, G., Kgabi, N., Raymond, L.N. dan Victor, M.T., (2017) Investigation of possible human exposure to metals concentration in vegetables, *Journal of Toxicology and Environmental Health Sciences*, 9(7), hal. 66–72.
- An-nori, A., El Mejahed, K., Fels, L. El, Touhami, D., Ezzariai, A., El Gharous, M. dan Hafidi, M., (2023) Assessment of the agronomic value of solar-dried sludge and heavy metals bioavailability based on the bioaccumulation factor and translocation index, *Frontiers in Environmental Science*, 11(April), hal. 1–14.
- Andrade, C., (2019) The P value and statistical significance : misunderstandings, explanations, challenges, and althernatives, *Indian Journal of Psychological Medicine*, 41(2), hal. 138–143.
- Andrade, R., Mancini, M., Fernanda, A., Silva, G., Weindorf, D.C., Chakraborty, S. dan Roberto, L., (2022) Proximal sensor data fusion and auxiliary information for tropical soil property prediction : Soil texture, *Geoderma*, 422(March).
- Andrade, R., Mancini, M., Teixeira, A.F. dos S., Silva, S.H.G., Weindorf, D.C., Chakraborty, S., Guilherme, L.R.G. dan Curi, N., (2022) Proximal sensor data fusion and auxiliary information for tropical soil property prediction: Soil texture, *Geoderma*, 422(May).
- Anonim, (2011) *Pupuk Organik, Pupuk Hayati Dan Pembenh Tanah, Menteri Pertanian Republik Indonesia*.
- Anonim, (2017) *Competence of testing and calibration ISO/IEC 17025*,

International Organization for Standardization.

- Anonim, (2020) Statistics of Food Consumption 2020, in *Center for Agricultural Data and AND Information System - MINISTRY OF AGRICULTURE*, hal. 1–103. Tersedia pada: <http://epublikasi.setjen.pertanian.go.id/arsip-perstatistikan/163-statistik/statistik-konsumsi/751-statistik-konsumsi-pangan-tahun-2020>.
- Anonim, (2021a) *Produksi Bawang Merah di Indonesia*, Badan Pusat Statistik. Tersedia pada: <https://brebeskab.bps.go.id/> (Diakses: 5 Januari 2022).
- Anonim, (2021b) *Rencana Strategis Kementerian Pertanian Tahun 2020-2024, Menteri Pertanian Republik Indonesia*. Tersedia pada: [https://rb.pertanian.go.id/upload/file/RENSTRA KEMENTAN 2020-2024 REVISI 2 \(26 Agt 2021\).pdf](https://rb.pertanian.go.id/upload/file/RENSTRA_KEMENTAN_2020-2024_REVISI_2_(26_Agt_2021).pdf).
- Anonim, (2021c) T-4-93 – Safety standards for fertilizers and supplements, *Canadian Food Inspection Agency*, hal. 1–20.
- Antoine, J.M.R., Fung, L.A.H. dan Grant, C.N., (2017) Assessment of the potential health risks associated with the aluminium, arsenic, cadmium and lead content in selected fruits and vegetables grown in Jamaica, *Toxicology Reports*, 4(February), hal. 181–187.
- Arbalestrie, B., Falys, J., Bemelmans, N., Thami, A., Monin, L., Devos, E. dan Agnan, Y., (2022) Rare earth elements in an intercropping cover crop to evaluate the trace element transfer from soil to plant, *Biogeochemistry*, 161(3), hal. 373–387.
- Ashraf, I., Ahmad, F., Sharif, A., Altaf, A.R. dan Teng, H., (2021) Heavy metals assessment in water, soil, vegetables and their associated health risks via consumption of vegetables, District Kasur, Pakistan, *SN Applied Sciences*, 3(5), hal. 1–16.
- Askari-Khorasgani, O. dan Pessarakli, M., (2020) Evaluation of cultivation methods and sustainable agricultural practices for improving shallot bulb production—a review, *Journal of Plant Nutrition*, 43(1), hal. 148–163.
- Aski, M.A.H., Ghobadi, S., Sari, A.A., Ardesir, R.A., Arabi, M.H.G. dan Manouchehri, H., (2023) Health risk assessment of heavy metals (Zn, Pb, Cd, and Hg) in water and muscle tissue of farmed carp species in North Iran, *Environmental Science and Pollution Research*, 30(12), hal. 32464–32472.
- Astolfi, M.L., Pietris, G., Mazzei, C., Marconi, E. dan Canepari, S., (2020) Element levels and predictors of exposure in the hair of Ethiopian children, *International Journal of Environmental Research and Public Health*, 17(22), hal. 1–22.
- ATSDR, (2012) U.S. Department of Health and Human Services Public Health Service. Agency for Toxic Substances and Disease Registry. Toxicological Profile for Vanadium, *ATSDR's Toxicological Profiles*, (September), hal. 1–200. Tersedia pada: <https://www.atsdr.cdc.gov/toxprofiles/tp.asp?id=276&tid=50>.
- Avigliano, E., Lozano, C., Plá, R.R. dan Volpedo, A. V., (2016) Toxic element

determination in fish from Paraná River Delta (Argentina) by neutron activation analysis: Tissue distribution and accumulation and health risk assessment by direct consumption, *Journal of Food Composition and Analysis*, 54, hal. 27–36.

Avino, P., Lammardo, M., Petrucci, A. dan Rosada, A., (2021) Weekly and longitudinal element variability in hair samples of subjects non-occupationally exposed, *Applied Sciences (Switzerland)*, 11(3), hal. 1–17.

Ayo, F. dan M., R.O., (2014) Effect of rainfall season on the chemical properties of the soil of a Southern Guinea Savanna ecosystem in Nigeria, *Journal of Ecology and The Natural Environment*, 6(4), hal. 182–189.

Azzi, V., Kazpard, V., Lartiges, B., Kobeissi, A., Kanso, A. dan El Samrani, A.G., (2017) Trace Metals in Phosphate Fertilizers Used in Eastern Mediterranean Countries, *Clean - Soil, Air, Water*, 45(1).

Bacilieri, F.S., de Vasconcelos, A.C.P., Lana, R.M.Q., Mageste, J.G. dan Torres, J.L.R., (2017a) Titanium (Ti) in plant nutrition - A review, *Australian Journal of Crop Science*, 11(04), hal. 382–386.

Bacilieri, F.S., de Vasconcelos, A.C.P., Lana, R.M.Q., Mageste, J.G. dan Torres, J.L.R., (2017b) Titanium (Ti) in plant nutrition - A review, *Australian Journal of Crop Science*, 11(4), hal. 382–386.

Badawy, W., Elsenbawy, A., Dmitriev, A., El Samman, H., Shcheglov, A., El-Gamal, A., Kamel, N.H.M. dan Mekewi, M., (2022) Characterization of major and trace elements in coastal sediments along the Egyptian Mediterranean Sea, *Marine Pollution Bulletin*, 177(February), hal. 113526.

Badrudin, U., Jazilah, S. dan Prakoso, B., (2022) The Effect of Soil Submersion and Conditioner Materials on Residual Organophosphate Pesticides in Soil and Shallot Bulbs, *Agrivita*, 44(1), hal. 1–10.

Bah, H.A.F., Martinez, V.O., dos Santos, N.R., Gomes Junior, E.A., Costa, D.O., Pires, E.M., Santana, J.V.A., Cerqueira, F. da S. dan Menezes-Filho, J.A., (2023) Determinants of Exposure to Potentially Toxic Metals in Pregnant Women of the DSAN-12M Cohort in the Recôncavo Baiano, Brazil, *International Journal of Environmental Research and Public Health*, 20(4), hal. 1–16.

Bahamonde, H.A., Fernández, V., Gyenge, J., Mattenet, F. dan Peri, P.L., (2019) Essential Nutrient and Trace Element Foliar Resorption of Two Co-Existing Nothofagus Species Grown Under Different Environmental Conditions in Southern Patagonia, *Frontiers in Plant Science*, 10(November), hal. 1–13.

El Bahgy, H.E.K., Elabd, H. dan Elkorashey, R.M., (2021) Heavy metals bioaccumulation in marine cultured fish and its probabilistic health hazard, *Environmental Science and Pollution Research*, 28(30), hal. 41431–41438.

Bakshi, S., Banik, C. dan He, Z., (2018) The impact of heavy metal contamination on soil health, in *Managing soil health for sustainable agriculture*, hal. 1–36.

Baloch, S., (2021) Essential and non-essential elements in medicinal plants: A Review, *Biomedical Journal of Scientific & Technical Research*, 33(4), hal.

26098–26100.

- Baltas, H., Sirin, M., Emre, G. dan Ozcelik, A.E., (2020) A case study on pollution and a human health risk assessment of heavy metals in agricultural soils around Sinop province , Turkey, *Chemosphere*, 241.
- Barik, S.S., Prusty, P., Singh, R.K., Tripathy, S., Farooq, S.H. dan Sharma, K., (2020) Seasonal and spatial variations in elemental distributions in surface sediments of Chilika Lake in response to change in salinity and grain size distribution, *Environmental Earth Sciences*, 79(11), hal. 1–18.
- Barriga-Vélez, M.A., Ramírez-Vargas, L.C., López-Barrera, E.A. dan Peña-Rincón, C.A., (2022) Potential ecological risk index for metals in a grazing area, Guasca, Cundinamarca, *Revista Facultad de Ingenieria*, (106), hal. 103–112.
- Bass, D.A., Hickok, D., Quig, D. dan Urek, K., (2001) Trace element analysis in hair: Factors determining accuracy, precision, and reliability, *Alternative Medicine Review*, 6(5), hal. 472–481.
- Bayat, S., Dalir, N., Mokhtassi-Bidgoli, A., Malakouti, M.J. dan Shahbazi, K., (2022) Selenium alleviates cadmium-induced stress in durum wheat (*Triticum durum*) by enhancing the accumulation of cadmium in the roots and by modulating of photosynthesis parameters , *Journal of Plant Nutrition*, 46(9), hal. 1–17.
- Bedassa, M., Abebaw, A. dan Desalegn, T., (2017) Assessment of selected heavy metals in onion bulb and onion leaf (*Allium cepa* L .), in selected areas of Central Rift Valley of Oromia Region Ethiopia, *Journal of Horticulture*, 4(4), hal. 1–5.
- Belmonte, A., Muñoz, P., Santos-Echeandía, J. dan Romero, D., (2021) Tissue distribution of mercury and its relationship with selenium in atlantic bluefin tuna (*Thunnus thynnus* L.), *International Journal of Environmental Research and Public Health*, 18(24).
- Benson, N.U., Anake, W.U. dan Etesin, U.M., (2014) Trace metals levels in inorganic fertilizers commercially available in Nigeria, *Journal of Scientific Research and Reports*, 3(4), hal. 610–620.
- Benzing, A., van der Ent, A., Casey, L.W., Luna, M., Luna, E., Quispe, R., Durán, F., Choquehuanca, M. dan Ledesma, C., (2022) High natural bromine concentrations in organic Brazil Nuts from Bolivia, *Journal of Food Composition and Analysis*, 110(March).
- Beroigui, M., Naylo, A., Walczak, M., Hafidi, M., Charzyński, P., Świtoniak, M., Róžański, S. dan Boularbah, A., (2020) Physicochemical and microbial properties of urban park soils of the cities of Marrakech, Morocco and Toruń, Poland: Human health risk assessment of fecal coliforms and trace elements, *Catena*.
- Beygi, M. dan Jalali, M., (2019) Assessment of trace elements (Cd, Cu, Ni, Zn) fractionation and bioavailability in vineyard soils from the Hamedan, Iran, *Geoderma*, 337, hal. 1009–1020.

- Bobaker, A.M., Alakili, I., Elkhidir, E.E., Sarmani, S.B. dan Yaseen, Z.M., (2022) An Investigation for Heavy Metals ' Contamination in Farmers ' Fingernails : Case Study in Libya, *Journal of Chemistry*, 2022, hal. 14–20.
- Bode, P., (2010) Quality Control and Assurance of Neutron Activation Analysis, *Encyclopedia of Analytical Chemistry*, hal. 1–18.
- Bosch, A.C., O'Neill, B., Sigge, G.O., Kerwath, S.E. dan Hoffman, L.C., (2016) Heavy metals in marine fish meat and consumer health: A review, *Journal of the Science of Food and Agriculture*, 96(1), hal. 32–48.
- Bouhila, Z., Azli, T., Boukhadra, D., Hadri, A., Bayou, N., Mazouzi, C., Benbouzid, S. dan Lounici, H., (2021) Assessment of elemental composition in Algiers-Algeria, using instrumental neutron activation analysis on different environmental samples of lichens and tree barks, *Journal of Radioanalytical and Nuclear Chemistry*, 329(3), hal. 1301–1311.
- Brühl, C.A., Bakanov, N., Köthe, S., Eichler, L., Sorg, M., Hörren, T., Mühlethaler, R., Meinel, G. dan Lehmann, G.U.C., (2021) Direct pesticide exposure of insects in nature conservation areas in Germany, *Scientific Reports*, 11(1), hal. 1–10.
- Buggy, C.J. dan Tobin, J.M., (2008) Seasonal and spatial distribution of metals in surface sediment of an urban estuary, *Environmental Pollution*, 155(2), hal. 308–319.
- Bureau of Indian Standards, (2005) *IS 11624: Guidelines for the Quality of Irrigation Water*.
- Cabral-Pinto, M.M.S., Inácio, M., Neves, O., Almeida, A.A., Pinto, E., Oliveiros, B. dan Ferreira da Silva, E.A., (2020) Human Health Risk Assessment Due to Agricultural Activities and Crop Consumption in the Surroundings of an Industrial Area, *Exposure and Health*, 12(4), hal. 629–640.
- Cai, G., Carminati, A., Abdalla, M. dan Ahmed, M.A., (2021) Soil textures rather than root hairs dominate water uptake and soil-plant hydraulics under drought, *Plant Physiology*, 187(2), hal. 858–872.
- Cai, L., Wang, Q., Wen, H., Luo, J. dan Wang, S., (2019) Heavy metals in agricultural soils from a typical township in Guangdong Province, China : Occurrences and spatial distribution, *Ecotoxicology and Environmental Safety*, 168, hal. 184–191.
- Cai, Y., Mao, L., Deng, X., Zhou, C. dan Zhang, Y., (2022) Trace Elements in Surface Sediments from Xinyanggang River of Jiangsu Province, China: Spatial Distribution, Risk Assessment and Source Appointment, *SSRN Electronic Journal*, 187(November 2022), hal. 114550.
- Campos, P. dan De la Rosa, J.M., (2020) Assessing the effects of biochar on the immobilization of trace elements and plant development in a naturally contaminated soil, *Sustainability (Switzerland)*, 12(15), hal. 1–20.
- Campos, V., (2003) Trace elements in pesticides, *Communications in Soil Science and Plant Analysis*, 34(9–10), hal. 1261–1268.
- Campos, V., (2011) Trace elements in pesticides, *Communication in Soil Science*

and Plant Analysis, 34(9 & 10), hal. 1261–1268.

Canadian Society of Soil Science, (2006) *Soil Sampling and Methods of Analysis*. Second Edi. Diedit oleh M.R. Carter dan E.G. Gregorich. Taylor & Francis Group, LLC.

Canpolat, Ö., Varol, M., Okan, Ö.Ö. dan Eriş, K.K., (2022) Sediment contamination by trace elements and the associated ecological and health risk assessment: A case study from a large reservoir (Turkey), *Environmental Research*, 204(August 2021).

Cao, X., Chen, Y., Wang, X. dan Deng, X., (2001) Effects of redox potential and pH value on the release of rare earth elements from soil, *Chemosphere*, 44(4), hal. 655–661.

Carbajal-Vázquez, V.H., Gómez-Merino, F.C., Herrera-Corredor, J.A., Contreras-Oliva, A., Alcántar-González, G. dan Trejo-Téllez, L.I., (2020) Effect of titanium foliar applications on tomato fruits from plants grown under salt stress conditions, *Notulae Botanicae Horti Agrobotanici Cluj-Napoca*, 48(2), hal. 924–937.

Cârdei, P., Tudora, C., Vlăduț, V., Pruteanu, M.A., Găgeanu, I., Cujbescu, D., Bordean, D.M., Ungureanu, N., Ipate, G. dan Cristea, O.D., (2021) Mathematical model to simulate the transfer of heavy metals from soil to plant, *Sustainability (Switzerland)*, 13(11), hal. 1–18.

Čargonja, M., Mekterović, D., Žurga, P., Ravlić-Gulan, J., Radović, I.B. dan Žauhar, G., (2023) Deposition of heavy metals in biological tissues of workers in metal workshops, *Environmental Science and Pollution Research*, 30(13), hal. 36794–36806.

Çelik, S., Akbaba, M., Nazlıcan, E., Gören, İ.E., Yavuz Güzel, E. dan Daglioglu, N., (2021) Association between occupational and environmental pesticide exposure in Cukurova region by hair and blood biomonitoring, *Environmental Science and Pollution Research*, 28(44), hal. 63191–63201.

Cesana, B.M., (2018) What p-value must be used as the Statistical Significance Threshold? $P < 0.005$, $P < 0.01$, $P < 0.05$ or no value at all?, *Biomedical Journal of Scientific & Technical Research*, 6(3), hal. 5310–5318.

Cetin, M., Aljama, A.M.O., Alrabiti, O.B.M., Adiguzel, F., Sevik, H. dan Zeren Cetin, I., (2022) Using Topsoil Analysis to Determine and Map Changes in Ni Co Pollution, *Water, Air, and Soil Pollution*, 233(8).

Chai, N., Yi, X., Xiao, J., Liu, T., Liu, Y., Deng, L. dan Jin, Z., (2021) Spatiotemporal variations, sources, water quality and health risk assessment of trace elements in the Fen River, *Science of the Total Environment*, 757, hal. 143882.

Chang, H., Huang, L., Song, P. dan Ru, L., (2022) Prediction of arsenic accumulation in a calcareous soil-wheat / maize rotation system with continuous amendment of sewage sludge, *Plant, Soil and Environment*, 68(11), hal. 516–524.

Che, W., Piao, J., Gao, Q., Li, Xuebin, Li, Xiang dan Jin, F., (2023) Response of

soil physicochemical properties, soil nutrients, enzyme activity and rice yield to rice straw returning in highly saline-alkali paddy soils, *Journal of Soil Science and Plant Nutrition*, 23(3), hal. 4396–4411.

Chen, L., Liu, J., Zhang, W., Li, Q., Hu, Y., Wang, L., Hu, G. dan Wang, J., (2022) Increased ecological and health risks associated with potentially toxic trace elements in agricultural soil adversely affected by gold (Au) mining activities, *Journal of Soils and Sediments*, hal. 509–521.

Chen, L. dan Ma, K., (2023) Spatial and Temporal Distribution and Source Analysis of Heavy Metals in Agricultural Soils of Ningxia, Northwest of China, *Sustainability*, 15(21), hal. 15360.

Chen, R., Wang, Q., Lv, J., Wang, Z. dan Gao, T., (2021) Multivariate correlation analysis of bio-accumulation with soil properties and potential health risks of cadmium and lead in rice seeds and cabbage in pollution zones, China, *Environmental Geochemistry and Health*, 43(9), hal. 3485–3503.

Chen, R., Cheng, N., Ding, G., Ren, F., Lv, J. dan Shi, R., (2021a) Predictive model for cadmium uptake by maize and rice grains on the basis of bioconcentration factor and the diffusive gradients in thin-films technique, *Environmental Pollution*, 289(March), hal. 117841.

Chen, R., Cheng, N., Ding, G., Ren, F., Lv, J. dan Shi, R., (2021b) Predictive model for cadmium uptake by maize and rice grains on the basis of bioconcentration factor and the diffusive gradients in thin-films technique, *Environmental Pollution*, 289(July), hal. 117841.

Chen, X.X., Liu, Y.M., Zhao, Q.Y., Cao, W.Q., Chen, X.P. dan Zou, C.Q., (2020) Health risk assessment associated with heavy metal accumulation in wheat after long-term phosphorus fertilizer application, *Environmental Pollution*, 262, hal. 114348–114356.

Chen, Y., Gao, S., Jones, E.J. dan Singh, B., (2021) Prediction of Soil Clay Content and Cation Exchange Capacity Using Visible Near-Infrared Spectroscopy, Portable X-ray Fluorescence, and X-ray Diffraction Techniques, *Environmental Science and Technology*, 55(8), hal. 4629–4637.

Chhabra, R., (2018) Irrigation Water: Quality Criteria, in *Soil Salinity and Water Quality*, hal. 156–182.

Colquhoun, D., (2017) The reproducibility of research and the misinterpretation of p-values, *Royal Society Open Science*, 4(12), hal. 1–22.

Craven, C.B., Wawryk, N., Jiang, P., Liu, Z. dan Li, X.F., (2019) Pesticides and trace elements in cannabis: Analytical and environmental challenges and opportunities, *Journal of Environmental Sciences (China)*, 85, hal. 82–93.

Cui, X., Mao, P., Sun, S., Huang, R., Fan, Y., Li, Yongxing, Li, Yingwen, Zhuang, P. dan Li, Z., (2021) Phytoremediation of cadmium contaminated soils by *Amaranthus Hypochondriacus* L.: The effects of soil properties highlighting cation exchange capacity, *Chemosphere*, 283(May), hal. 131067.

Dai, X., Wang, Z., Liu, S., Yao, Y., Zhao, R., Xiang, T., Fu, T., Feng, H., Xiao, L., Yang, X. dan Wang, S., (2022) Hyperspectral imagery reveals large spatial

- variations of heavy metal content in agricultural soil - A case study of remote-sensing inversion based on Orbita Hyperspectral Satellites (OHS) imagery, *Journal of Cleaner Production*, 380(P1), hal. 134878.
- Dai, Y., Lv, J., Liu, K., Zhao, X. dan Cao, Y., (2016) Major controlling factors and prediction models for arsenic uptake from soil to wheat plants, *Ecotoxicology and Environmental Safety*, 130, hal. 256–262.
- Demir, F., Kipcak, A.S., Dere Ozdemir, O. dan Moroydor Derun, E., (2020) Determination of essential and non-essential element concentrations and health risk assessment of some commercial fruit juices in Turkey, *Journal of Food Science and Technology*, 57(12), hal. 4432–4442.
- Demir, Z., (2020) Effects of microbial bio-fertilizers on soil physicochemical properties under different soil water regimes in greenhouse grown eggplant (*Solanum Melongena L.*), *Communications in Soil Science and Plant Analysis*, 51(14), hal. 1888–1903.
- Demirtaş, Y., Topbaş, M., Çamur, D., Albay, M., İlter, H., Ayoğlu, F.N., Altın, A., Can, M., Parlak Somuncu, B., Açıkgöz, B. dan Aydın, F., (2023) Heavy Metal and Trace Element Levels in Hair Samples from Fishermen in Turkey: The Fish/Ermen Heavy Metal Study (FHMS), *Biological Trace Element Research* [Preprint], (0123456789).
- Deng, W., Liu, W., Li, X. dan Yang, Y., (2020) Source apportionment of and potential health risks posed by trace elements in agricultural soils: A case study of the Guanzhong Plain, northwest China, *Chemosphere*, 258, hal. 127317.
- Deverel, S.J., Goldberg, S. dan Fujii, R., (2011) Chemistry of trace elements in soils and groundwater, in *Agricultural Salinity Assessment and Management: Second Edition*, hal. 89–137.
- Dewi, T., Martono, E., Hanudin, E. dan Harini, R., (2021a) Heavy metals contamination assessment in agricultural soil for shallot in Wanasari, Brebes Regency, Central Java Province, *IOP Conference Series: Earth and Environmental Science*, 752(1), hal. 1–8.
- Dewi, T., Martono, E., Hanudin, E. dan Harini, R., (2021b) Source Identification and Spatial Distribution of Heavy Metal Concentrations in Shallot Fields in Brebes Regency, Central Java, Indonesia, *Applied and Environmental Soil Science*, 2021.
- Dewi, T., Martono, E., Hanudin, E. dan Harini, R., (2021c) Status of soil heavy metals contamination using contamination indices in shallot fields, *E3S Web of Conferences*, 306, hal. 1–10.
- Dhaliwal, S.S., Setia, R., Kumar, V., Ghosh, T., Taneja, S., Singh, R., Ansari, J., Kukal, S.S. dan Pateriya, B., (2021) Assessment of seasonal variations and human health risks due to heavy metals in water, soils and food crops using multi-indices approach, *Environmental Earth Sciences*, 80(11), hal. 1–11.
- Dimkpa, C.O., Fugice, J., Singh, U. dan Lewis, T.D., (2020) Development of fertilizers for enhanced nitrogen use efficiency – Trends and perspectives, *Science of the Total Environment*, 731, hal. 139113.

- Ding, Y., Feng, R., Wang, R., Guo, J. dan Zheng, X., (2014) A dual effect of Se on Cd toxicity: Evidence from plant growth, root morphology and responses of the antioxidative systems of paddy rice, *Plant and Soil*, 375(1–2), hal. 289–301.
- Dinter, T.C., Gerzabek, M.H., Puschenreiter, M., Strobel, B.W., Couenberg, P.M. dan Zehetner, F., (2021a) Heavy metal contents, mobility and origin in agricultural topsoils of the Galápagos Islands, *Chemosphere*, 272, hal. 129821.
- Dinter, T.C., Gerzabek, M.H., Puschenreiter, M., Strobel, B.W., Couenberg, P.M. dan Zehetner, F., (2021b) Heavy metal contents, mobility and origin in agricultural topsoils of the Galápagos Islands, *Chemosphere*, 272, hal. 129821–129831.
- Domanico, F., Forte, G., Majorani, C., Senofonte, O., Petrucci, F., Pezzi, V. dan Alimonti, A., (2017) Determination of mercury in hair: Comparison between gold amalgamation-atomic absorption spectrometry and mass spectrometry, *Journal of Trace Elements in Medicine and Biology*, 43, hal. 3–8.
- Döndü, M., Özdemir, N., Demirak, A., Keskin, F. dan Zeynalova, N., (2023) Bioaccumulation and human health risk assessment of some heavy metals in sediments, *Sparus aurata* and *Salicornia europaea* in Güllük Lagoon, the south of Aegean Sea, *Environmental Science and Pollution Research*, 30(7), hal. 18227–18243.
- Dong, Q., Song, C., Yang, D., Zhao, Y. dan Yan, M., (2023) Spatial Distribution, Contamination Assessment and Origin of Soil Heavy Metals in the Danjiangkou Reservoir, China, *International Journal of Environmental Research and Public Health*, 20(4).
- Doulgeridou, A., Amlund, H., Sloth, J.J. dan Hansen, M., (2020) Review of Potentially Toxic Rare Earth Elements Thallium and Tellurium in Plant-based Foods.pdf, *EFSA Journal*, 18(S1).
- Duan, C., Wang, B. dan Li, J., (2022) Prediction Model of Soil Heavy Metal Content Based on Particle Swarm Algorithm Optimized Neural Network, *Computational Intelligence and Neuroscience*, 2022.
- Ediene, V. dan Umoetok, S., (2017) Concentration of Heavy Metals in Soils at the Municipal Dumpsite in Calabar Metropolis, *Asian Journal of Environment & Ecology*, 3(2), hal. 1–11.
- Eid, E.M., Alrumman, S.A., Galal, T.M. dan El-Bebany, A.F., (2018) Prediction models for evaluating the heavy metal uptake by spinach (*Spinacia oleracea* L.) from soil amended with sewage sludge, *International Journal of Phytoremediation*, 20(14), hal. 1418–1426.
- Eid, E.M., Alrumman, S.A., Farahat, E.A. dan El-Bebany, A.F., (2018) Prediction models for evaluating the uptake of heavy metals by cucumbers (*Cucumis sativus* L.) grown in agricultural soils amended with sewage sludge, *Environmental Monitoring and Assessment*, 190(9).
- Eid, E.M., Alrumman, S.A., Galal, T.M. dan El-Bebany, A.F., (2019a) Regression models for monitoring trace metal accumulations by *Faba sativa* Bernh. plants

- grown in soils amended with different rates of sewage sludge, *Scientific Reports*, 9(1), hal. 1–12.
- Eid, E.M., Alrumman, S.A., Galal, T.M. dan El-Bebany, A.F., (2019b) Regression models for monitoring trace metal accumulations by Faba sativa Bernh. plants grown in soils amended with different rates of sewage sludge, *Scientific Reports*, 9(1), hal. 1–11.
- Eid, E.M., Shaltout, K.H., Abdallah, S.M., Galal, T.M., El-Bebany, A.F. dan Sewelam, N.A., (2020) Uptake Prediction of Ten Heavy Metals by Eruca sativa Mill. Cultivated in Soils Amended with Sewage Sludge, *Bulletin of Environmental Contamination and Toxicology*, 104(1), hal. 134–143.
- Eid, E.M., Shaltout, K.H., Alamri, Saad A.M., Alrumman, S.A., Hussain, A.A., Sewelam, N., El-Bebany, A.F., Alfarhan, A.H., Picó, Y. dan Barcelo, D., (2021) Prediction models based on soil properties for evaluating the uptake of eight heavy metals by tomato plant (*Lycopersicon esculentum* Mill.) grown in agricultural soils amended with sewage sludge, *Journal of Environmental Chemical Engineering*, 9(5).
- Eid, E.M., Shaltout, K.H., Alamri, Saad A. M., Alrumman, S.A., Sewelam, N., Taher, M.A., Hashem, M., Mostafa, Y.S. dan Ahmed, M.T., (2021) Prediction Models Founded on Soil Characteristics for the Estimated Uptake of Nine Metals by Okra Plant, *Abelmoschus esculentus* (L.) Moench., Cultivated in Agricultural Soils Modified with Varying Sewage Sludge Concentrations.pdf, *Sustainability*, 13(12356).
- Eid, E.M., Khedher, K.M., Ayed, H., Arshad, M., Mouldi, A., Shaltout, K.H., Sewelam, N.A., Galal, T.M., El-Bebany, A.F. dan Alshehri, A.M.A., (2022) Prediction models based on soil properties for evaluating the heavy metal uptake into *Hordeum vulgare* L. grown in agricultural soils amended with different rates of sewage sludge, *International Journal of Environmental Health Research*, 32(1), hal. 106–120.
- El-Desouky, H.S., Islam, K.R., Bergefurd, B., Gao, G., Harker, T., Abd-El-Dayem, H., Ismail, F., Mady, M. dan Zewail, R.M.Y., (2021) Nano iron fertilization significantly increases tomato yield by increasing plants' vegetable growth and photosynthetic efficiency, *Journal of Plant Nutrition*, 44(11), hal. 1649–1663.
- El-Mahrouk, M.E., Dewir, Y.H., Hafez, Y.M., El-Banna, A., Moghanm, F.S., El-Ramady, H., Mahmood, Q., Elbehiry, F. dan Brevik, E.C., (2023) Assessment of Bioaccumulation of Heavy Metals and Their Ecological Risk in Sea Lettuce (*Ulva* spp.) along the Coast Alexandria, Egypt: Implications for Sustainable Management, *Sustainability*, 15(5), hal. 4404.
- El-sorogy, A.S.Y.M.A.-H.M., (2023) Water Quality Assessment and Environmental Impact of Heavy.
- Elgaml, N.M., Salama, A.B., Shehata, H.S. dan Abdelhamid, M.T., (2022) Effective Microorganisms Improve Growth, Nutrients Uptake, Normalized Difference Vegetation Index, Photosystem II, and Essential Oil While Reducing Canopy Temperature in Water-Stressed *Salvia sclarea* Plants, *International Journal of Agronomy*, 2022.

- Emon, F.J., Rohani, F., Sumaiya, N., Fatema, M., Jannat, T., Akter, Y., Kari, Z.A., Tahiluddin, A.B. dan Goh, K.W., (2023) Bioaccumulation and Bioremediation of Heavy Metals in Fishes — A Review, *Toxic*, 11(510), hal. 1–28.
- EPA, C., (1997) Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health - Vanadium, *Environmental Protection*, hal. 1–7.
- EPA, U., (2005) Ecological soil screening level for iron. Interim Final., *US Environmental Protection Agency - Office of Solid Waste and Emergency* [Preprint], (November).
- EPA, U., (2011) *Expose Factor Handbook: 2011 Edition*, U.S. Environ. Prot. Agency EPA/600/R-, 1–1466 doi:EPA/600/R-090/052F.
- Eqani, S.A.M.A.S., Tanveer, Z.I., Qiaoqiao, C., Cincinelli, A., Saqib, Z., Mulla, S.I., Ali, N., Katsoyiannis, I.A., Shafqat, M.N. dan Shen, H., (2018) Occurrence of selected elements (Ti, Sr, Ba, V, Ga, Sn, Tl, and Sb) in deposited dust and human hair samples: implications for human health in Pakistan, *Environmental Science and Pollution Research*, 25(13), hal. 12234–12245.
- Ermakov, V., Bech, J., Gulyaeva, U., Tyutikov, S., Safonov, V., Danilova, V. dan Roca, N., (2020) Relationship of the mobile forms of calcium and strontium in soils with their accumulation in meadow plants in the area of Kashin–Beck endemia, *Environmental Geochemistry and Health*, 42(1), hal. 159–171.
- Etienne, P., Diquelou, S., Prudent, M., Salon, C., Maillard, A. dan Ourry, A., (2018) Macro and micronutrient storage in plants and their remobilization when facing scarcity : the case of drought, *Agriculture*, 8(14), hal. 1–17.
- Van Eynde, E., Fendrich, A.N., Ballabio, C. dan Panagos, P., (2023) Spatial assessment of topsoil zinc concentrations in Europe, *Science of the Total Environment*, 892(May), hal. 164512.
- Falcioni, R., Moriwaki, T., Rodrigues, M., de Oliveira, K.M., Furlanetto, R.H., dos Reis, A.S., dos Santos, G.L.A.A., Mendonça, W.A., Crusiol, L.G.T., Gonçalves, J.V.F., Chicati, M.L., de Oliveira, R.B., Nanni, M.R. dan Antunes, W.C., (2023) Nutrient deficiency lowers photochemical and carboxylation efficiency in tobacco, *Theoretical and Experimental Plant Physiology*, 35(2), hal. 81–97.
- Fang, F., Wang, Y., Zhu, Z., Yao, Y., Lin, Y. dan Wang, J., (2019) Distribution characteristics and influencing factors of heavy metals in scalp hair of Huainan urban residents, *Environmental Monitoring and Assessment*, 191(7).
- Farahat, E.A., Mahmoud, W.F., Awad, H.E.A., Farrag, H.F., Arshad, M., Eid, E.M. dan Fahmy, G.M., (2021) Prediction Models for Evaluating the Uptake of Heavy Metals by the Invasive Grass *Vossia cuspidata* (Roxb .) Griff . in the River Nile , Egypt : A Biomonitoring Approach, *Sustainability*, 13(10558).
- Farooq, M., Asif, S., Jang, Y.H., Park, J.R., Zhao, D.D., Kim, E.G. dan Kim, K.M., (2022) Effect of Different Salts on Nutrients Uptake, Gene Expression, Antioxidant, and Growth Pattern of Selected Rice Genotypes, *Frontiers in Plant Science*, 13(June), hal. 1–16.

- Farooq, M.U., Ishaq, I., Barutcular, C., Skalicky, M., Maqbool, R., Rastogi, A., Hussain, S., Allakhverdiev, S.I. dan Zhu, J., (2022) Mitigation effects of selenium on accumulation of cadmium and morpho-physiological properties in rice varieties, *Plant Physiology and Biochemistry*, 170(August 2021), hal. 1–13.
- Fatima, S.U., Khan, M.A., Siddiqui, F., Mahmood, N., Salman, N., Alamgir, A. dan Shaukat, S.S., (2022) Geospatial assessment of water quality using principal components analysis (PCA) and water quality index (WQI) in Basho Valley, Gilgit Baltistan (Northern Areas of Pakistan), *Environmental Monitoring and Assessment*, 194(3).
- Feng, H. dan Cheng, J., (2023) Whole-Process Risk Management of Soil Amendments for Remediation of Heavy Metals in Agricultural Soil—A Review, *International Journal of Environmental Research and Public Health*, 20(3).
- Fipps, G., (2003) *Irrigation water quality standards and salinity management strategies, Texas A&M Agrilife Extension*.
- Francke, A., Majkowska-Gadomska, J., Kaliniewicz, Z. dan Jadwisieńczyk, K., (2022) No Effect of Biostimulants on the Growth, Yield and Nutritional Value of Shallots Grown for Bunch Harvest, *Agronomy*, 12(5).
- Friedel, J.K. dan Ardakani, M.R., (2021) Soil nutrient dynamics and plant-induced nutrient mobilisation in organic and low-input farming systems: conceptual framework and relevance, *Biological Agriculture and Horticulture*, 37(1), hal. 1–24.
- Funes, I., Salomon, M.V., Gil, R., Mastrantonio, L., Bottini, R. dan Piccoli, P., (2017) Arsenic and trace elements in soil , water , grapevine and onion in Jáchal, Argentina, *Science of the Total Environment*, hal. 1–14.
- Galinha, C., Freitas, M.C. dan Pacheco, A.M.G., (2010) Enrichment factors and transfer coefficients from soil to rye plants by INAA, in *Journal of Radioanalytical and Nuclear Chemistry*, hal. 583–589.
- Gallego, J.L. dan Olivero-Verbel, J., (2021) Cytogenetic toxicity from pesticide and trace element mixtures in soils used for conventional and organic crops of *Allium cepa* L, *Environmental Pollution*, 276, hal. 116558–116568.
- Gambuś, F. dan Wieczorek, J., (2012) Pollution of fertilizers with heavy metals, *Ecological Chemistry and Engineering. A*, 19(04), hal. 353–360.
- Geilfus, C.M., (2018) Chloride: from nutrient to toxicant, *Plant and Cell Physiology*, 59(5), hal. 877–886.
- Geraskin, M.M., Bakanova, Z.N., Kargin, V.I., Ivanova, N.N. dan Neyaskin, N.N., (2022) Accounting of heavy metals in agricultural land use, *BIO Web of Conferences*, 52, hal. 00029.
- Ghasemi, Y., Ghasemi, K., Pirdashti, H. dan Asgharzadeh, R., (2016) Effect of Selenium Enrichment on the Growth, Photosynthesis and Mineral Nutrition of Broccoli, *Notulae Scientia Biologicae*, 8(2), hal. 1–5.
- Ghazali, A.R., Abdul Razak, N.E., Othman, M.S., Othman, H., Ishak, I., Lubis,

- S.H., Mohammad, N., Abd Hamid, Z., Harun, Z., Kamarulzaman, F. dan Abdullah, R., (2012) Study of heavy metal levels among farmers of Muda agricultural development authority, Malaysia, *Journal of Environmental and Public Health*, 2012.
- Giger, U. dan Christopher, M.M., (2021) Letter regarding “A novel bone marrow-sparing treatment for primary erythrocytosis in a cat: Onion powder,” *Journal of Veterinary Internal Medicine*, 35(6), hal. 2559–2560.
- Gnonsoro, U.P., Ake Assi, Y.E.D., Sangare, N.S., Kouakou, Y.U. dan Trokourey, A., (2022) Health Risk Assessment of Heavy Metals (Pb, Cd, Hg) in Hydroalcoholic Gels of Abidjan, Côte d’Ivoire, *Biological Trace Element Research*, 200(5), hal. 2510–2518.
- Gopal, V., Shanmugasundaram, A., Nithya, B., Magesh, N.S. dan Jayaprakash, M., (2018) Water quality of the Uppanar estuary, Southern India: Implications on the level of dissolved nutrients and trace elements, *Marine Pollution Bulletin*, 130(April), hal. 279–286.
- Goswami, A.P., Das, S. dan Kalamdhad, A.S., (2021) Assessment of possible pollution risk using spatial distribution and temporal variation of heavy metals in river sediments, *Environmental Earth Sciences*, 80(19), hal. 1–15.
- Gruba, P., Socha, J., Błońska, E. dan Lasota, J., (2015) Effect of variable soil texture, metal saturation of soil organic matter (SOM) and tree species composition on spatial distribution of SOM in forest soils in Poland, *Science of the Total Environment*, 521–522, hal. 90–100.
- Gu, Y.G., Gao, Y.P. dan Lin, Q., (2016) Contamination, bioaccessibility and human health risk of heavy metals in exposed-lawn soils from 28 urban parks in southern China’s largest city, Guangzhou, *Applied Geochemistry*, 67, hal. 52–58.
- Guan, X., Liu, D., Liu, B., Wu, C., Liu, C., Wang, X., Zou, C. dan Chen, X., (2020) Critical leaf magnesium concentrations for adequate photosynthate production of soilless cultured cherry tomato—interaction with potassium, *Agronomy*, 10(12).
- Guo, B., Hong, C., Tong, W., Xu, M., Huang, C., Yin, H., Lin, Y. dan Fu, Q., (2020) Health risk assessment of heavy metal pollution in a soil-rice system: a case study in the Jin-Qu Basin of China, *Scientific Reports*, 10(1), hal. 1–11.
- Gupta, N., Kumar, K., Kumar, V., Kumar, S., Chadd, R.P. dan Kumar, A., (2019) Trace elements in soil-vegetables interface : Translocation, bioaccumulation, toxicity and amelioration - A review, *Science of the Total Environment*, 651, hal. 2927–2942.
- Gupta, N., Yadav, K.K., Kumar, V., Kumar, S., Chadd, R.P. dan Kumar, A., (2019) Trace elements in soil-vegetables interface: Translocation, bioaccumulation, toxicity and amelioration - A review, *Science of the Total Environment*, 651, hal. 2927–2942.
- Gupta, N., Yadav, K.K., Kumar, V., Prasad, S., Cabral-Pinto, M.M.S., Jeon, B.H., Kumar, S., Abdellattif, M.H. dan Alsukaibia, A.K.D., (2022) Investigation of

Heavy Metal Accumulation in Vegetables and Health Risk to Humans From Their Consumption, *Frontiers in Environmental Science*, 10(February).

Hacisalihoglu, G., (2020) Zinc (Zn): The last nutrient in the alphabet and shedding light on zn efficiency for the future of crop production under suboptimal zn, *Plants*, 9(11), hal. 1–9.

Hadayat, N., De Oliveira, L.M., Da Silva, E., Han, L., Hussain, M., Liu, X. dan Ma, L.Q., (2018) Assessment of trace metals in five most-consumed vegetables in the US: Conventional vs. organic, *Environmental Pollution*, 243, hal. 292–300.

Haddad, M., Nassar, D. dan Shtaya, M., (2023) Heavy metals accumulation in soil and uptake by barley (*Hordeum vulgare*) irrigated with contaminated water, *Scientific Reports*, 13(1), hal. 1–12.

Haefele, S.M., Thomas, C.L. dan Saito, K., (2022) Long-term fertility experiments for irrigated rice in the West African Sahel: Effect on macro- and micronutrient concentrations in plant and soil, *Field Crops Research*, 275(November 2021), hal. 108357.

Hasanah, Y., Ginting, J. dan Kusriarmin, A.M., (2022) An analysis of morphological characters of two shallot varieties (*Allium ascalonicum* L.) using true shallot seed in the highlands with different cultivation methods to support sustainable agriculture, *IOP Conference Series: Earth and Environmental Science*, 977(1), hal. 1–9.

He, Z., Shentu, Yang, X., Baligar, V.C., Zhang, T. dan Stoffella, P.J., (2015) Heavy metal contamination of soils: sources, indicators, and assessment, *Journal of Environmental Indicators*, 9, hal. 17–18.

Hogan, J.A., Valverde-Barrantes, O.J., Tang, W., Ding, Q., Xu, H. dan Baraloto, C., (2021) Evidence of elemental homeostasis in fine root and leaf tissues of saplings across a fertility gradient in tropical montane forest in Hainan, China, *Plant and Soil*, 460(1–2), hal. 625–646.

Hossain, M.B., Tanjin, F., Rahman, M.S., Yu, J., Akhter, S., Noman, M.A. dan Sun, J., (2022) Metals Bioaccumulation in 15 Commonly Consumed Fishes from the Lower Meghna River and Adjacent Areas of Bangladesh and Associated Human Health Hazards, *Toxics*, 10(3), hal. 1–18.

Hu, B., Jia, X., Hu, J., Xu, D., Xia, F. dan Li, Y., (2017) Assessment of heavy metal pollution and health risks in the soil-plant-human system in the Yangtze river delta, China, *International Journal of Environmental Research and Public Health*, 14(9), hal. 1–18.

Hu, B., Xue, J., Zhou, Y., Shao, S., Fu, Z., Li, Y. dan Chen, S., (2020) Modelling bioaccumulation of heavy metals in soil-crop ecosystems and identifying its controlling factors using machine learning *, *Environmental Pollution*, 262, hal. 114308.

Hu, B., Guo, P., Wu, Y., Deng, J., Su, H., Li, Y. dan Nan, Y., (2021) Study of soil physicochemical properties and heavy metals of a mangrove restoration wetland, *Journal of Cleaner Production*, 291.

Hu, C., Nie, Z., Shi, H., Peng, H., Li, G., Liu, Haiyang, Li, C. dan Liu, Hongen,

- (2023) Selenium uptake, translocation, subcellular distribution and speciation in winter wheat in response to phosphorus application combined with three types of selenium fertilizer, *BMC plant biology*, 23(1), hal. 224.
- Hu, R., Beguiristain, T., De Junet, A. dan Leyval, C., (2020) Bioavailability and transfer of elevated Sm concentration to alfalfa in spiked soils, *Environmental Science and Pollution Research*, 27(35), hal. 44333–44341.
- Hu, Y., Wang, C., Song, Z., Chen, M., Ding, L., Liang, X., Bi, X., Li, Z., Li, P. dan Zheng, W., (2021) Heavy metal in rice and vegetable and human exposure near a large pb/zn smelter in central China, *International Journal of Environmental Research and Public Health*, 18(23).
- Hussain, B., Li, J., Ma, Y., Chen, Y., Wu, C., Ullah, A. dan Tahir, N., (2021) A field evidence of cd, zn and cu accumulation in soil and rice grains after long-term (27 years) application of swine and green manures in a paddy soil, *Sustainability (Switzerland)*, 13(4), hal. 1–14.
- Husson, O., (2013) Redox potential (Eh) and pH as drivers of soil/plant/microorganism systems: A transdisciplinary overview pointing to integrative opportunities for agronomy, *Plant and Soil*, 362(1–2), hal. 389–417.
- Husson, O., Pierre, J., Lydia, S., Alain, B., Hans, R., Schmidt, P., Kempf, J., Husson, B., Tingry, S., Noël, J., Jean, A., Deguine, P., Régis, F., Jay, G. dan Lamichhane, R., (2021) *Soil and plant health in relation to dynamic sustainment of Eh and pH homeostasis : A review*, *Plant and Soil*. Springer International Publishing.
- Hyryläinen, A., Rautio, P., Turunen, M. dan Huttunen, S., (2015) Seasonal and inter-annual variation in the chlorophyll content of three co-existing Sphagnum species exceeds the effect of solar UV reduction in a subarctic peatland, *SpringerPlus*, 4(1), hal. 1–11.
- Ikhajiagbe, B., Musa, S.I. dan Okeme, J.O., (2019) Effect of Changes in Soil Cation Exchange Capacity on the Reclamation of Lead By Eleusine Indica, *FUDMA Journal of Sciences (FJS)*, 3(4), hal. 176–183.
- Indratin, Poniman, Sukarjo dan Helmi, M., (2021) Distribution of endosulfan insecticide residues on intensive shallot agriculture farming in Brebes Regency, Indonesia, *IOP Conference Series: Earth and Environmental Science*, 648(1), hal. 1–8.
- Indratin, Wahyuni, S., Poniman dan Sutriadi, M.T., (2021) Identification of organochlorine insecticide contamination on shallots land in Nganjuk Regency, East Java Province, Indonesia, *IOP Conference Series: Earth and Environmental Science*, 648(1), hal. 1–8.
- Indratin, Arief Budihardjo, M. dan Helmi, M., (2020) Geospatial model of organophosphate insecticide residues in shallot land in Wanasari Sub-district, Brebes Regency, Central Java Province, Indonesia, *E3S Web of Conferences*, 202.
- Irmawati, I., Umar, M.T., Ambo Ala Husain, A., Citra Malina, A., Nurdin Kadir,

- N. dan Alimuddin, A., (2020) Distribution and characteristics of Asian seabass (*Lates calcarifer* Bloch, 1790) in South Sulawesi, *IOP Conference Series: Earth and Environmental Science*, 564(1).
- Istiqomah, D., Irwandhi, Subandrio, H.R., Rakhman, H.I., Nugroho, I.F.S., Hendra dan Islamiati, A., (2021) Degradation ability of indigenous bacteria from pesticide-contaminated water and soil in Brebes Regency, Indonesia, *Journal of Physics: Conference Series*, 1960(1), hal. 1–7.
- Ivannikov, S., Markin, N., Golub, A. dan Zheleznov, V., (2023) Determination of uranium-238 in solid materials of various compositions by instrumental neutron activation analysis with a radionuclide neutron source based on Cf-252, *Journal of Radioanalytical and Nuclear Chemistry*, 332(9), hal. 3753–3761.
- Izydorczyk, G., Mironiuk, M., Baśladyńska, S., Mikulewicz, M. dan Chojnacka, K., (2021) Hair mineral analysis in the population of students living in the Lower Silesia region (Poland) in 2019: Comparison with biomonitoring study in 2009 and literature data, *Environmental Research*, 196(November 2020).
- Jain, A. dan Taylor, R.W., (2023) Determination of Cation Exchange Capacity of Calcareous Soils: Comparison of Summation Method and Direct Replacement Method, *Communications in Soil Science and Plant Analysis*, 54(6), hal. 743–748.
- Jalali, M., Antoniadis, V. dan Najafi, S., (2021) *Assessment of trace element pollution in northern and western Iranian agricultural soils: a review*, *Environmental Monitoring and Assessment*. Springer International Publishing.
- Jehan, S., Khattak, S.A., Khan, S., Wang, L., Ali, L., Waqas, M. dan Hussain, M.L., (2022) Spatial source apportionment of pollution and health risks in the agricultural soils of Shangla, Northern Pakistan: multistatistical approach, *Arabian Journal of Geosciences*, 15(17).
- Jia, Z., Li, S., Liu, Q., Jiang, F. dan Hu, J., (2021) Distribution and partitioning of heavy metals in water and sediments of a typical estuary (Modaomen, South China): The effect of water density stratification associated with salinity, *Environmental Pollution*, 287(December 2020), hal. 117277.
- Jiménez-Ballesta, R., Bravo, S., Amorós, J.A., Pérez-de-los-Reyes, C., García-Pradas, J., Sánchez, M. dan García-Navarro, F.J., (2021) Preliminary Assessment of the Occurrence of Six Rare Earth Elements in Calcareous Vineyard Soils, *Water, Air, and Soil Pollution*, 232(2).
- Joode, B. van W. de, Barbeau, B., Bouchard, M.F., Mora, A.M., Skytt, Å., Lundh, T., Lindh, C.H., Mergler, D. dan Rica, C., (2016) Manganese concentrations in drinking water from villages near banana plantations with aerial mancozeb spraying in Costa Rica : Results from the Infants ' Environmental Health Study (ISA), *Environmental Pollution*, 215, hal. 247–257.
- Jovanović, P., Rachmilevitch, S., Roitman, N. dan Erel, R., (2021) Strontium as a tracer for calcium: uptake, transport and partitioning within tomato plants, *Plant and Soil*, 466(1–2), hal. 303–316.

- Jovičić, K., Nikolić, D.M., Višnjić-Jeftić, Ž., Đikanović, V., Skorić, S., Stefanović, S.M., Lenhardt, M., Hegediš, A., Krpo-Četković, J. dan Jarić, I., (2015) Mapping differential elemental accumulation in fish tissues: assessment of metal and trace element concentrations in wels catfish (*Silurus glanis*) from the Danube River by ICP-MS, *Environmental Science and Pollution Research*, 22(5), hal. 3820–3827.
- Ju, Y., Chen, Chih-feng, Cheng, Y., Tsai, C., Chen, Chiu-wen dan Dong, C., (2022) Developing ecological risk assessment of metals released from sediment based on sediment quality guidelines linking with the properties : A case study for Kaohsiung Harbor, *Science of the Total Environment*, 852(August), hal. 158407.
- Justi, M., de Freitas, M.P., Silla, J.M., Nunes, C.A. dan Silva, C.A., (2021) Molecular structure features and fast identification of chemical properties of metal carboxylate complexes by FTIR and partial least square regression, *Journal of Molecular Structure*, 1237, hal. 130405.
- Kabata-Pendias, A. dan Pendias, H., (2001) *Trace Elements in Soil and Plants*. Third Edit, *Biogeochemistry of Trace Elements*. Third Edit. Florida: CRC Press LLC.
- Kadyampakeni, D.M. dan Chinyukwi, T., (2021) Are macronutrients and micronutrients therapeutic for restoring performance of trees affected by citrus greening? A discussion of current practices and future research opportunities, *Journal of Plant Nutrition*, 44(19), hal. 2949–2969.
- Kalantzi, I., Pergantis, S.A., Black, K.D., Shimmiel, T.M., Papageorgiou, N., Tsapakis, M. dan Karakassis, I., (2016) Metals in tissues of seabass and seabream reared in sites with oxic and anoxic substrata and risk assessment for consumers, *Food Chemistry*, 194, hal. 659–670.
- Kang, N.Q., Hu, Y.Y., Zhang, Z.W. dan Lü, X.T., (2023) Changes of mineral nutrition (K, Ca, and Mg) in soil and plants following historical nitrogen inputs in a temperate steppe: the implications for grass tetany, *Plant and Soil* [Preprint], (0123456789).
- Karahan, F., (2023) Evaluation of Trace Element and Heavy Metal Levels of Some Ethnobotanically Important Medicinal Plants Used as Remedies in Southern Turkey in Terms of Human Health Risk, *Biological Trace Element Research*, 201(1), hal. 493–513.
- Karar, S., Hazra, S. dan Das, S., (2019) Assessment of the heavy metal accumulation in the Blue Swimmer Crab (*Portunus pelagicus*), northern Bay of Bengal: Role of salinity, *Marine Pollution Bulletin*, 143(April), hal. 101–108.
- Katsanou, K. dan Karapanagioti, H.K., (2019) Surface water and groundwater sources for drinking water, *Handbook of Environmental Chemistry*, 67(April 2022), hal. 1–19.
- Kaur, T., Sehgal, S.K., Singh, S., Sharma, S., Dhaliwal, S.S. dan Sharma, V., (2021) Assessment of seasonal variability in soil nutrients and its impact on soil quality under different land use systems of lower shivalik foothills of

himalaya, india, *Sustainability (Switzerland)*, 13(3), hal. 1–16.

- Kaya, G. dan Türkoğlu, S., (2017) Analysis of certain fatty acids and toxic metal bioaccumulation in various tissues of three fish species that are consumed by Turkish people, *Environmental Science and Pollution Research*, 24(10), hal. 9495–9505.
- Kazemi, A., Esmailbeigi, M., Ansari, A., Asl, A.G. dan Mohammadzadeh, B., (2022) Alterations and health risk assessment of the environmental concentration of heavy metals in the edible tissue of marine fish (Thunnus tonggol) consumed by different cooking methods, *Regional Studies in Marine Science*, 53, hal. 102361.
- Khalid, S., Shahid, M., Natasha, Shah, A.H., Saeed, F., Ali, M., Qaisrani, S.A. dan Dumat, C., (2020) Heavy metal contamination and exposure risk assessment via drinking groundwater in Vehari, Pakistan, *Environmental Science and Pollution Research*, 27(32), hal. 39852–39864.
- Khan, N.H., Nafees, M., Saeed, T., Khan, A. dan Bashir, A., (2020) Accumulation and translocation of micro-nutrients in soil and plants of orchard and non-orchard fields, *Pakistan Journal of Scientific and Industrial Research Series B: Biological Sciences*, 63(3), hal. 187–198.
- Khan, R., Mohanty, S. dan Sengupta, D., (2021) Elemental distribution in core sediments of Podampata coast, eastern Odisha, India: potentiality of rare earth elements and Th exploration, *Arabian Journal of Geosciences*, 14(2).
- Kharazi, A., Leili, M., Khazaei, M., Alikhani, M.Y. dan Shokoohi, R., (2021) Human health risk assessment of heavy metals in agricultural soil and food crops in Hamadan, Iran, *Journal of Food Composition and Analysis*, 100(November 2020), hal. 103890.
- Khurshid, C.A., Mahdi, K., Ahmed, O.I., Osman, R., Rahman, M. dan Ritsema, C., (2022) Assessment of Potentially Toxic Elements in the Urban Soil and Plants of Kirkuk City in Iraq, *Sustainability (Switzerland)*, 14(9), hal. 1–16.
- Kim, K.H., Kabir, E. dan Jahan, S.A., (2017) Exposure to pesticides and the associated human health effects, *Science of the Total Environment*, 575, hal. 525–535.
- Kinuthia, G.K., Ngure, V., Beti, D., Lugalia, R., Wangila, A. dan Kamau, L., (2020) Levels of heavy metals in wastewater and soil samples from open drainage channels in Nairobi, Kenya: community health implication, *Scientific Reports*, 10(1), hal. 1–13.
- Klimer, V.J. dan Alexander, L.T., (1949) Methods of Making Mechanical Analysis of Soils, *Soil Science*, 68(1), hal. 15–24.
- Kljaković-Gašpić, Z., Sekovanić, A., Orct, T., Šebešćen, D., Klasiček, E. dan Zanella, D., (2023) Potentially Toxic Elements in Water, Sediments and Fish from the Karstic River (Raša River, Croatia) Located in the Former Coal-Mining Area, *Toxics*, 11(1).
- Kolenčík, M., Ernst, D., Urík, M., Ďurišová, L., Bujdoš, M., Šebesta, M., Dobročka, E., Kšiňan, S., Illa, R., Qian, Y., Feng, H., Černý, I., Holíšová, V. dan

- Kratošová, G., (2020) Foliar application of low concentrations of titanium dioxide and zinc oxide nanoparticles to the common sunflower under field conditions, *Nanomaterials*, 10(8), hal. 1–20.
- Kreiling, R.M., Bartsch, L.A., Perner, P.M., Hlavacek, E.J. dan Christensen, V.G., (2021) Riparian Forest Cover Modulates Phosphorus Storage and Nitrogen Cycling in Agricultural Stream Sediments, *Environmental Management*, 68(2), hal. 279–293.
- Kronzucker, H.J., Coskun, D., Schulze, L.M., Wong, J.R. dan Britto, D.T., (2013) Sodium as nutrient and toxicant, *Plant and Soil*, 369(1–2), hal. 1–23.
- Krzyżak, J., Rusinowski, S., Sitko, K., Szada-Borzyszkowska, A., Stec, R., Jensen, E., Clifton-Brown, J., Kiesel, A., Lewin, E., Janota, P. dan Pogrzeba, M., (2023) The Effect of Different Agrotechnical Treatments on the Establishment of Miscanthus Hybrids in Soil Contaminated with Trace Metals, *Plants*, 12(1).
- Kumar, A., Denre, M. dan Ruplal Prasad, (2017) Concentration of trace metals and potential health risk assessment via consumption of food crops in the South Chotanagpur of Jharkhand, India, *The Pharma Innovation Journal*, 6(September), hal. 159–167.
- Kumar, D., Malik, D.S., Kumar, N., Gupta, N. dan Gupta, V., (2020) Spatial changes in water and heavy metal contamination in water and sediment of river Ganga in the river belt Haridwar to Kanpur, *Environmental Geochemistry and Health*, 42(7), hal. 2059–2079.
- Kumar, U., Kumar, S. dan Mohapatra, T., (2021) Interaction between macro- and micro-nutrients in plants, *Frontiers in Plant Science*, 12, hal. 1–9.
- Kumar, V., Pandita, S. dan Setia, R., (2022) A meta-analysis of potential ecological risk evaluation of heavy metals in sediments and soils, *Gondwana Research*, 103, hal. 487–501.
- Kumar, V., Thakur, R.K. dan Kumar, P., (2019) Assessment of heavy metals uptake by cauliflower (*Brassica oleracea* var. botrytis) grown in integrated industrial effluent irrigated soils: A prediction modeling study, *Scientia Horticulturae*, 257(January), hal. 108682.
- Kumar, V., Thakur, R.K. dan Kumar, P., (2020) Predicting heavy metals uptake by spinach (*Spinacia oleracea*) grown in integrated industrial wastewater irrigated soils of Haridwar, India, *Environmental Monitoring and Assessment*, 192(11).
- Kumari, A., Sinha, S.K., Rani, N. dan Sinha, R.K., (2021) Assessment of heavy metal pollution in water, sediment, and fish of the river Ganga at Varanasi, India, *Arabian Journal of Geosciences*, 14(22).
- Kuziemska, B., Wysokinski, A. dan Klej, P., (2023) The Content, Uptake and Bioaccumulation Factor of Copper and Nickel in Grass Depending on Zinc Application and Organic Fertilization, *Agriculture (Switzerland)*, 13(9).
- Lajayer, H.A., Savaghebi, G., Hadian, J., Hatami, M. dan Pezhmanmehr, M., (2017) Comparison of copper and zinc effects on growth, micro- and macronutrients status and essential oil constituents in pennyroyal (*Mentha pulegium* L.), *Revista Brasileira de Botanica*, 40(2), hal. 379–388.

- Lamb, D.T., Matanitobua, V.P., Palanisami, T., Megharaj, M. dan Naidu, R., (2013) Bioavailability of barium to plants and invertebrates in soils contaminated by barite, *Environmental Science and Technology*, 47(9), hal. 4670–4676.
- Latifi, Z. dan Jalali, M., (2018) Trace element contaminants in mineral fertilizers used in Iran, *Environmental Science and Pollution Research*, 25(32), hal. 31917–31928.
- Le, T.P.Q., Le, N.D., Hoang, T.T.H., Rochelle-Newall, E., Nguyen, T.A.H., Dinh, L.M., Duong, T.T., Pham, T.M.H., Nguyen, T.D., Phung, T.X.B., Nguyen, T.Q.T., Vu, T.H., Le, P.T. dan Phung, V.P., (2022) Surface sediment quality of the Red River (Vietnam): impacted by anthropogenic and natural factors, *International Journal of Environmental Science and Technology*, 19(12), hal. 12477–12496.
- Leão, L.P., Costa, R.D.V.F. Da, Leite, M.G.P., Júnior, H.A.N. dan Fonseca, R.M.F., (2021) Distribution and assessment of trace elements contamination in sediments of conceição river basin, brazil, *Geosciences (Switzerland)*, 11(6), hal. 1–17.
- Lécrivain, N., Clément, B., Dabrin, A., Seigle-Ferrand, J., Bouffard, D., Naffrechoux, E. dan Frossard, V., (2021) Water-level fluctuation enhances sediment and trace metal mobility in lake littoral, *Chemosphere*, 264.
- Lesmeister, L., Lange, F.T., Breuer, J., Biegel-Engler, A., Giese, E. dan Scheurer, M., (2021) Extending the knowledge about PFAS bioaccumulation factors for agricultural plants – A review, *Science of the Total Environment*, 766, hal. 142640.
- Li, H., Shi, A., Li, M. dan Zhang, X., (2013) Effect of pH, temperature, dissolved oxygen, and flow rate of overlying water on heavy metals release from storm sewer sediments, in *Journal of Chemistry*.
- Li, H., Yang, Z., Dai, M., Diao, X., Dai, S., Fang, T. dan Dong, X., (2020) Input of Cd from agriculture phosphate fertilizer application in China during 2006–2016, *Science of the Total Environment*, 698, hal. 1–7.
- Li, H., Van den Bulcke, J., Mendoza, O., Deroo, H., Haesaert, G., Dewitte, K., De Neve, S. dan Sleutel, S., (2022) Soil texture controls added organic matter mineralization by regulating soil moisture—evidence from a field experiment in a maritime climate, *Geoderma*, 410(January), hal. 115690.
- Li, Muzi, Wei, Y., Yin, Y., Zhu, W., Bai, X. dan Zhou, Y., (2023) Characteristics of Soil Physicochemical Properties and Microbial Community of Mulberry (*Morus alba* L.) and Alfalfa (*Medicago sativa* L.) Intercropping System in Northwest Liaoning, *Microorganisms*, 11(1).
- Li, Min, Ma, Y., Du, D., Yan, X., Luo, W., Xu, R., Ren, M., Zheng, J. dan Yu, Y., (2023) Spatial distribution, impact factors, and potential health implications of trace elements in human hair from capital residents in China, *Chemosphere*, 328(3), hal. 138355.
- Li, R., Yuan, Y., Li, C., Sun, W., Yang, M. dan Wang, X., (2020) Environmental health and ecological risk assessment of soil heavy metal pollution in the

coastal cities of estuarine bay-a case study of Hangzhou Bay, China, *Toxics*, 8(3).

- Li, Shengchun, Chen, H., Jiang, S., Hu, F., Xing, D. dan Du, B., (2023) Selenium and Nitrogen Fertilizer Management Improves Potato Root Function, Photosynthesis, Yield and Selenium Enrichment, *Sustainability (Switzerland)*, 15(7).
- Li, Wenjing, Wang, J., Jiang, L., Lv, G., Hu, D., Wu, D. dan Yang, X., (2023) Rhizosphere effect and water constraint jointly determined the roles of microorganism in soil phosphorus cycling in arid desert regions, *Catena*, 222(March 2022), hal. 106809.
- Li, X., Wu, P., Delang, C.O., He, Q. dan Zhang, F., (2021) Spatial-temporal variation, ecological risk, and source identification of nutrients and heavy metals in sediments in the peri-urban riverine system, *Environmental Science and Pollution Research*, 28(45), hal. 64739–64756.
- Li, Y., Yu, Y., Zheng, N., Hou, S., Song, X. dan Dong, W., (2020) Metallic elements in human hair from residents in smelting districts in northeast China: Environmental factors and differences in ingestion media, *Environmental Research*, 182(6), hal. 108914.
- Liang, G., Pan, L. dan Liu, X., (2017) Assessment of typical heavy metals in human hair of different age groups and foodstuffs in Beijing, China, *International Journal of Environmental Research and Public Health*, 14(8).
- Lima, M.W. de, Pereira, W.V. da S., Souza, E.S. de, Teixeira, R.A., Palheta, D. da C., Faial, K. do C.F., Costa, H.F. dan Fernandes, A.R., (2022) Bioaccumulation and human health risks of potentially toxic elements in fish species from the southeastern Carajás Mineral Province, Brazil, *Environmental Research*, 204(May 2021).
- Lin, T., Zheng, X. dan Zheng, H., (2020) Seasonal variations in leaf and branch trace elements and the influence of a 3-yr 100% rainfall exclusion on *Pinus massoniana* Lamb, *PeerJ*, 8, hal. 1–20.
- Lindh, P. dan Lemenkova, P., (2022) Leaching of Heavy Metals from Contaminated Soil Stabilised by Portland Cement and Slag Bremen, *Ecological Chemistry and Engineering S*, 29(4), hal. 537–552.
- Liu, B., Ai, S., Zhang, W., Huang, D. dan Zhang, Y., (2017) Assessment of the bioavailability, bioaccessibility and transfer of heavy metals in the soil-grain-human systems near a mining and smelting area in NW China, *Science of the Total Environment*, 609, hal. 822–829.
- Liu, B., Dong, D., Hua, X., Dong, W. dan Li, M., (2021) Spatial Distribution and Ecological Risk Assessment of Heavy Metals in Surface Sediment of Songhua River, Northeast China, *Chinese Geographical Science*, 31(2), hal. 223–233.
- Liu, H., Liu, Haiyan, Yang, Z. dan Wang, K., (2021) Bone Mineral Density in Population Long-Term Exposed to Rare Earth Elements from a Mining Area of China, *Biological Trace Element Research*, 199(2), hal. 453–464.
- Liu, W., Ma, L., Li, Y., Abuduwaili, J. dan Uulu, S.A., (2020) Heavy metals and

related human health risk assessment for river waters in the issyk-kul basin, kyrgyzstan, central asia, *International Journal of Environmental Research and Public Health*.

- Liu, Y.M., Liu, D.Y., Zhang, W., Chen, X.X., Zhao, Q.Y., Chen, X.P. dan Zou, C.Q., (2020) Health risk assessment of heavy metals (Zn, Cu, Cd, Pb, As and Cr) in wheat grain receiving repeated Zn fertilizers, *Environmental Pollution*, 257, hal. 1–38.
- Llamazares Vegh, S., Biolé, F., Bavio, M., Tripodi, P., Gil, A.F. dan Volpedo, A. V., (2021) Bioaccumulation of 10 trace elements in juvenile fishes of the Lower Paraná River, Argentina: implications associated with essential fish growing habitat, *Environmental Science and Pollution Research*, 28(1), hal. 365–378.
- Llamazares Vegh, S., Biolé, F., Bavio, M., Tripodi, P. dan Volpedo, A. V., (2022) Distribution and Accumulation of Trace Elements in Organs of Juvenile Fishes from a Freshwater System (Paraná River, South America), *Biological Trace Element Research*, 200(5), hal. 2416–2431.
- López-Rayó, S., Valverde, S. dan Lucena, J.J., (2023) [S,S]-EDDS Ligand as a Soil Solubilizer of Fe, Mn, Zn, and Cu to Improve Plant Nutrition in Deficient Soils, *Journal of Agricultural and Food Chemistry*, 71(25), hal. 9728–9737.
- Lotfalian Dehkordi, A. dan Abedi, A., (2021) Investigation of shallot production system in terms of energy-economic-environmental in Iran, *Environmental Science and Pollution Research*, 28(46), hal. 65676–65686.
- Lu, J., Shao, G., Gao, Y., Zhang, K., Wei, Q. dan Cheng, J., (2021) Effects of water deficit combined with soil texture, soil bulk density and tomato variety on tomato fruit quality: A meta-analysis, *Agricultural Water Management*, 243(1), hal. 106427.
- Łuczyńska, J., Pietrzak-Fiećko, R., Purkiewicz, A. dan Łuczyński, M.J., (2022) Assessment of Fish Quality Based on the Content of Heavy Metals, *International Journal of Environmental Research and Public Health*, 19(4).
- Lyu, S., Wei, X., Chen, J., Wang, C., Wang, X. dan Pan, D., (2017) Titanium as a beneficial element for crop production, *Frontiers in Plant Science*, 8(April), hal. 1–19.
- Ma, L., Abuduwaili, J., Smanov, Z., Ge, Y., Samarkhanov, K., Saparov, G. dan Issanova, G., (2019) Spatial and vertical variations and heavy metal enrichments in irrigated soils of the syr darya river watershed, aral sea basin, kazakhstan, *International Journal of Environmental Research and Public Health*, 16(22).
- MacDonald, D.D., Ingersoll, C.G. dan Berger, T.A., (2000) Development and evaluation of consensus-based sediment quality guidelines for freshwater ecosystems, *Archives of Environmental Contamination and Toxicology*, 39(1), hal. 20–31.
- Machado, R.M.A., Alves-Pereira, I., Robalo, M. dan Ferreira, R., (2021) Effects of municipal solid waste compost supplemented with inorganic nitrogen on

- physicochemical soil characteristics, plant growth, nitrate content, and antioxidant activity in Spinach, *Horticulturae*, 7(3).
- Mahlangeni, N.T., Moodley, R. dan Jonnalagadda, S.B., (2019) Uptake, Translocation, and Bioaccumulation of Elements in Forest Nettle (*Laportea alatis*), *Analytical Letters*, 52(7), hal. 1050–1067.
- Major, N., Perković, J., Palčić, I., Bažon, I., Horvat, I., Ban, D. dan Goreta Ban, S., (2022) The Phytochemical and Nutritional Composition of Shallot Species (*Allium × cornutum*, *Allium × proliferum* and *A. cepa* Aggregatum) Is Genetically and Environmentally Dependent, *Antioxidants*, 11(8).
- Mansourri, G. dan Madani, M., (2016) Examination of the level of heavy metals in wastewater of Bandar Abbas wastewater treatment plant, *Open Journal of Ecology*, 06(02), hal. 55–61.
- Mao, G., Zhang, Y., Tong, Y., Huang, X. dan Mehr, F., (2020) Ecological risk assessment of heavy metals to aquatic organisms in the Lhasa River, Tibet, China, *Environmental Science and Pollution Research*, 27(21), hal. 26091–26102.
- Marín, O., Rengifo, E., Herrera, A. dan Tezara, W., (2005) Seasonal changes in water relations, photosynthesis and leaf anatomy of two species growing along a natural CO₂ gradient, *Interciencia*, 30(1), hal. 33–38.
- Marpaung, A.E., Susilowati, D.N., Sopha, G.A., Siagian, D.R., Girsang, S.S., Tarigan, R., Marpaung, I.S., Silitonga, T.F., Sabrina, T., Rauf, A., Karo, B., Hutabarat, R.C. dan Barus, S., (2023) The role of rhizosphere microbes as phosphate solubilizing bio fertilizers in shallot: a review, *IOP Conference Series: Earth and Environmental Science*, 1255(1), hal. 1–13.
- Martín-Cameán, A., Molina-Villalba, I., Jos, A., Iglesias-Linares, A., Solano, E., Cameán, A.M. dan Gil, F., (2014) Biomonitorization of chromium, copper, iron, manganese and nickel in scalp hair from orthodontic patients by atomic absorption spectrometry, *Environmental Toxicology and Pharmacology*, 37(2), hal. 759–771.
- Massaquoi, L.D., Ma, H., Liu, X.H., Han, P.Y., Zuo, S.M., Hua, Z.X. dan Liu, D.W., (2015) Heavy metal accumulation in soils, plants, and hair samples: an assessment of heavy metal exposure risks from the consumption of vegetables grown on soils previously irrigated with wastewater, *Environmental Science and Pollution Research*, 22(23), hal. 18456–18468.
- Mattila, T., (2023) Redox potential as a soil health indicator – how does it compare to existing methods ?, *Plant and Soil*, 2(Lal 2016), hal. 1–9.
- Mbah, C.N. dan Njoku, C., (2023) Yields and heavy metal uptake of cocoyam (*Xanthosoma sagittifolium*) and effects on soil properties of different tillage practices and application of burnt rice husk dust in Abakaliki, south-east Nigeria, *Biological Agriculture and Horticulture*, 39(1), hal. 62–72.
- McEneff, G., Quinn, B., Bennion, M., Dolan, S., O'Rourke, K. dan Morrison, L., (2017) Bioaccumulation of metals in juvenile rainbow trout (*oncorhynchus mykiss*) via dietary exposure to blue mussels, *Chemosphere*, 188, hal. 548–

556.

- Mei, K., Liu, J., Shi, R., Guo, X., Lu, H. dan Yan, C., (2020) The migrated behavior and bioavailability of arsenic in mangrove sediments affected by pH and organic acids, *Marine Pollution Bulletin*, 159(February), hal. 111480.
- Melai, V., Giovannini, A., Chiumiento, F., Bellocci, M. dan Migliorati, G., (2018) Occurrence of metals in vegetables and fruits from areas near landfill in Southern Italy and implications for human exposure, *International Journal of Food Contamination*, 5(1), hal. 1–13.
- Meng, D., Li, J., Liu, T., Liu, Y., Yan, M., Hu, J., Li, X., Liu, X., Liang, Y., Liu, H. dan Yin, H., (2019) Effects of redox potential on soil cadmium solubility: Insight into microbial community, *Journal of Environmental Sciences (China)*, 75, hal. 224–232.
- Mengistu, G.T., Sahilu, G., Mulat, W. dan Amare, E., (2023) Assessment of native plants for their potential to remove trace metals around Legadembi tailings dam, Southern Ethiopia, *Environmental Science and Pollution Research*, 30(19), hal. 55615–55624.
- Messant, M., Hani, U., Hennebelle, T., Guérard, F., Gakière, B., Gall, A., Thomine, S. dan Krieger-Liszkay, A., (2023) Manganese concentration affects chloroplast structure and the photosynthetic apparatus in *Marchantia polymorpha*, *Plant Physiology*, 192(1), hal. 356–369.
- Ming, C., Tao, Y., Quan, Y., Hui, X. dan Jinxia, N., (2016) Characterization of heavy metal pollution in vegetable field soils and health risk assessment in Dayu County, China, *INMATEH - Agricultural Engineering*, 48(1), hal. 95–102.
- Mirzaei, M., Marofi, S., Solgi, E., Abbasi, M., Karimi, R. dan Bakhtyari, H.R.R., (2019) Ecological and health risks of soil and grape heavy metals in long-term fertilized vineyards (Chaharmahal and Bakhtiari province of Iran), *Environmental Geochemistry and Health*, 5, hal. 1–17.
- Mitra, S., Sarkar, S.K., Raja, P., Biswas, J.K. dan Murugan, K., (2018) Dissolved trace elements in Hooghly (Ganges) River Estuary, India: Risk assessment and implications for management, *Marine Pollution Bulletin*, 133(June), hal. 402–414.
- Mng'ong'o, M., Munishi, L.K., Ndakidemi, P.A., Blake, W., Comber, S. dan Hutchinson, T.H., (2021) Accumulation and bioconcentration of heavy metals in two phases from agricultural soil to plants in Usangu agroecosystem-Tanzania, *Heliyon*, 7(7), hal. e07514.
- MNLH, (2003) *Surat Keputusan Menteri Negara Lingkungan Hidup Nomor 115 Tentang Pedoman Penentuan Status Mutu Air, Menteri Negara Lingkungan Hidup*. Tersedia pada: <http://medcontent.metapress.com/index/A65RM03P4874243N.pdf>.
- Mohammadi, S., Keshavarzi, B., Moore, F., Afzali, S.F. dan Sorooshian, A., (2022) Macronutrients, trace metals and health risk assessment in agricultural soil and edible plants of Mahshahr City, Iran, *Environmental Monitoring and*

Assessment, 194(2).

- Mohan, U. dan Krishnakumar, A., (2022) Geochemical aspects and contamination evaluation of major and trace elements in the sediments of Kallada river, southern Western Ghats, India, *Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering*, 57(4), hal. 258–267.
- Mokarram, M., Saber, A. dan Sheykhi, V., (2020) Effects of heavy metal contamination on river water quality due to release of industrial effluents, *Journal of Cleaner Production*, 277, hal. 123380.
- Molina-Roco, M., Escudey, M., Antilén, M., Arancibia-Miranda, N. dan Manquián-Cerda, K., (2018) Distribution of contaminant trace metals inadvertently provided by phosphorus fertilisers: movement, chemical fractions and mass balances in contrasting acidic soils, *Environmental Geochemistry and Health*, 40(6), hal. 2491–2509.
- Molina, M., Aburto, F., Calderón, R., Cazanga, M. dan Escudey, M., (2009) Trace element composition of selected fertilizers used in Chile: Phosphorus fertilizers as a source of long-term soil contamination, *Soil and Sediment Contamination*, 18(4), hal. 497–511.
- Monged, M.H.E., Hassan, H.B. dan El-Sayed, S.A., (2020) Spatial Distribution and Ecological Risk Assessment of Natural Radionuclides and Trace Elements in Agricultural Soil of Northeastern Nile Valley, Egypt, *Water, Air, and Soil Pollution*, 231(7).
- Monier, M.N., Soliman, A.M. dan Al-Halani, A.A., (2023) The seasonal assessment of heavy metals pollution in water, sediments, and fish of grey mullet, red seabream, and sardine from the Mediterranean coast, Damietta, North Egypt, *Regional Studies in Marine Science*, 57, hal. 102744.
- Muhammad, N., Zvobgo, G. dan Zhang, G. ping, (2019a) A review: The beneficial effects and possible mechanisms of aluminum on plant growth in acidic soil, *Journal of Integrative Agriculture*, 18(7), hal. 1518–1528.
- Muhammad, N., Zvobgo, G. dan Zhang, G. ping, (2019b) The beneficial effects and possible mechanisms of aluminum on plant growth in acidic soil, *Journal of Integrative Agriculture*, 18(7), hal. 1518–1528.
- Muhammad, S., Ullah, S., Ali, W., Jadoon, I.A.K. dan Arif, M., (2022) Spatial distribution of heavy metal and risk indices of water and sediments in the Kunhar River and its tributaries, *Geocarto International*, 37(20), hal. 5985–6003.
- Mukherjee, J., Saha, N.C. dan Karan, S., (2022) Bioaccumulation pattern of heavy metals in fish tissues and associated health hazards in human population, *Environmental Science and Pollution Research*, 29(15), hal. 21365–21379.
- Mukhopadhyay, B.P., Chakraborty, A., Bera, A. dan Saha, R., (2022) Suitability assessment of groundwater quality for irrigational use in Sagardighi block, Murshidabad district, West Bengal, *Applied Water Science*, 12(3), hal. 1–17.
- Mukiza, P., Bazimenyera, J.D.D., Nkundabose, J.P., Niyonkuru, R. dan

- Bapfakurera, N.E., (2021) Assessment of Irrigation Water Quality Parameters of Nyandungu Wetlands, *Journal of Geoscience and Environment Protection*, 09(10), hal. 151–160.
- Mulenga, C., Phiri, D., Ortega-Rodriguez, D.R. dan Meincken, M., (2023) Bioaccumulation of potentially toxic elements by indigenous and exotic trees growing around a copper leaching plant in Mufulira, Zambia, *Environmental Systems Research*, 12(1), hal. 1–13.
- Muljati, S., Triwinarto, A., Utami, N. dan Hermina, H., (2016) Description of median number of weight and height classified by age group on healthy Indonesian citizens based on Riskesdas 2013 Result, *Penelitian Gizi dan Makanan*, 39(2), hal. 137–144.
- Murniasih, S., Santosa, S.J. dan Roto, R., (2022a) Assessment of Multi-Nutrients and Heavy Metals in Inorganic Fertilizers Widely Used by Indonesian Farmers Using NAA, *Indonesian Journal of Chemistry*, 22(3), hal. 666–682.
- Murniasih, S., Santosa, S.J. dan Roto, R., (2022b) Identification of Toxic Heavy Metals and Trace Elements in Pesticides Used by Shallots (*Allium cepa* var . *aggregatum*) Farmers in Brebes District , Indonesia, *Key Engineering Materials*, 927, hal. 41–49.
- Mustapha, A.A., Abdu, N., Oyinlola, E.Y. dan Nuhu, A.A., (2022) Evaluating Different Methods of Organic Carbon Estimation on Nigerian Savannah Soils, *Journal of Soil Science and Plant Nutrition* [Preprint], (0123456789).
- Mutlu, T., (2021) Heavy metal concentrations in the edible tissues of some commercial fishes caught along the Eastern Black Sea coast of Turkey and the health risk assessment, *Spectroscopy Letters*, 54(6), hal. 437–445.
- Naccarato, A., Vommaro, M.L., Amico, D., Sprovieri, F., Pirrone, N., Tagarelli, A. dan Giglio, A., (2023) Triazine Herbicide and NPK Fertilizer Exposure: Accumulation of Heavy Metals and Rare Earth Elements, Effects on Cuticle Melanization, and Immunocompetence in the Model Species *Tenebrio molitor*, *Toxics*, 11(6).
- Nahar, N. dan Shahadat Hossen, M., (2021) Influence of sewage sludge application on soil properties, carrot growth and heavy metal uptake, *Communications in Soil Science and Plant Analysis*, 52(1), hal. 1–10.
- Nascimento Júnior, A.L. d., Souza, L. da S., Paiva, A. de Q., Souza, L.D., Souza-Filho, L.F., Fernandes Filho, E.I., Schaefer, C.E.G.R., Santos, J.A.G., Bomfim, M.R., Silva, E.F. d., Fernandes, A.C.O. dan Xavier, F.A. d. S., (2021) Concentration and variability of soil trace elements in an agricultural area in a semiarid region of the Irecê Plateau, Bahia, Brazil, *Geoderma Regional*, 24.
- Nasir, M.J., Wahab, A., Ayaz, T., Khan, S., Khan, A.Z. dan Lei, M., (2023) Assessment of heavy metal pollution using contamination factor, pollution load index, and geoaccumulation index in Kalpani River sediments, Pakistan, *Arabian Journal of Geosciences*, 16(2).
- Nasyitah Sobihah, N., Ahmad Zaharin, A., Khairul Nizam, M., Ley Juen, L. dan Kyoung-Woong, K., (2018) Bioaccumulation of heavy metals in maricultured

- fish, *Lates calcarifer* (Barramudi), *Lutjanus campechanus* (red snapper) and *Lutjanus griseus* (grey snapper), *Chemosphere*, 197, hal. 318–324.
- Nawab, J., Farooqi, S., Xiaoping, W., Khan, S. dan Khan, A., (2018) Levels, dietary intake, and health risk of potentially toxic metals in vegetables, fruits, and cereal crops in Pakistan, *Environmental Science and Pollution Research*, 25(6), hal. 5558–5571.
- Nining, E., Syarief, R., Machfud, Sobir dan Mas'Ud, Z.A., (2019) Factors that affect the behavior of shallot farmers in the use of pesticides in Brebes Regency, Central Java, Indonesia, *IOP Conference Series: Earth and Environmental Science*, 399(1), hal. 1–10.
- Niu, L., Cai, H., Jia, L., Luo, X., Tao, W., Dong, Y. dan Yang, Q., (2021) Metal pollution in the Pearl River Estuary and implications for estuary management: The influence of hydrological connectivity associated with estuarine mixing, *Ecotoxicology and Environmental Safety*, 225, hal. 112747.
- Noli, F. dan Tsamos, P., (2016) Concentration of heavy metals and trace elements in soils, waters and vegetables and assessment of health risk in the vicinity of a lignite- fi red power plant, *Science of the Total Environment*, 564, hal. 377–385.
- Nouairi, J., Baraud, F., Leleyter, L., Mefteh, S., Rocha, F. dan Medhioub, M., (2021) Spatial distribution and ecological risk assessment of potentially toxic elements in agricultural soils, stream sediments, and plants around Lakhout mine (northwestern Tunisia), *Arabian Journal of Geosciences*, 14(2).
- Nouioui, M.A., Araoud, M., Milliand, M.L., Bessueille-Barbier, F., Amira, D., Ayouni-Derouiche, L. dan Hedhili, A., (2018) Evaluation of the status and the relationship between essential and toxic elements in the hair of occupationally exposed workers, *Environmental Monitoring and Assessment*, 190(12).
- Novotná, M., Mikeš, O. dan Komprdová, K., (2015) Development and comparison of regression models for the uptake of metals into various field crops, *Environmental Pollution*, 207, hal. 357–364.
- Nuralykyzy, B., Wang, P., Deng, X., An, S. dan Huang, Y., (2021) Heavy metal contents and assessment of soil contamination in different land-use types in the qaidam basin, *Sustainability (Switzerland)*, 13(21), hal. 1–13.
- Nussbaum, M., Zimmermann, S., Walthert, L. dan Baltensweiler, A., (2023) Benefits of hierarchical predictions for digital soil mapping—An approach to map bimodal soil pH, *Geoderma*, 437(June), hal. 116579.
- Nyholm, N.E.I. dan Tyler, G., (2000) Rubidium content of plants, fungi and animals closely reflects potassium and acidity conditions of forest soils, *Forest Ecology and Management*, 134(1–3), hal. 89–96.
- Oguntade, O.A., Adegbuyi, A.A., Nassir, A.L., Olagunju, S.O., Salami, W.A. dan Adewale, R.O., (2020) Geoassessment of heavy metals in rural and urban floodplain soils: health implications for consumers of *Celosia argentea* and *Corchorus olitorius* vegetables in Sagamu, Nigeria, *Environmental Monitoring and Assessment*, 192(164), hal. 1–19.

- de Oliveira Mesquita, F., Pedrosa, T.D., Batista, R.O. dan de Andrade, E.M., (2021) Translocation factor of heavy metals by elephant grass grown with varying concentrations of landfill leachate, *Environmental Science and Pollution Research*, 28(32), hal. 43831–43841.
- Olorunfemi, I., Fasinmirin, J. dan Ojo, A., (2016) Modeling cation exchange capacity and soil water holding capacity from basic soil properties, *Eurasian Journal of Soil Science (Ejss)*, 5(4), hal. 266.
- Osman, H.E.M., Abdel-Hamed, E.M.W., Al-Juhani, W.S.M., Al-Maroi, Y.A.O. dan El-Morsy, M.H.E.M., (2021) Bioaccumulation and human health risk assessment of heavy metals in food crops irrigated with freshwater and treated wastewater: a case study in Southern Cairo, Egypt, *Environmental Science and Pollution Research*, 28(36), hal. 50217–50229.
- Osobamiro, T.M. dan Adewuyi, G.O., (2018) Determination of the effect of changes in climatic factors on the variations in soil physicochemical properties of farm settlements located in Ogun State, Nigeria, *Journal of Applied Sciences and Environmental Management*, 22(2), hal. 252–258.
- Otunola, B.O. dan Ololade, O.O., (2020) A review on the application of clay minerals as heavy metal adsorbents for remediation purposes, *Environmental Technology and Innovation*, 18, hal. 100692.
- Ouro-Sama, K., Solitoke, H.D., Tanouayi, G., Lazar, I.M., Bran, P., Nadejde, M., Ahoudi, H., Badassan, T.E.E., Nyametso, A.Y., Gnandi, K. dan Lazar, G.O., (2020) Spatial and seasonal variation of trace elements contamination level of the waters from the hydrosystem Lake Togo-Lagoon of Aného (South of Togo), *SN Applied Sciences*, 2(5), hal. 1–18.
- Ouro-Sama, K., Solitoke, H.D., Tanouayi, G., Lazar, I.M., Bran, P., Nadejde, M., Badassan, T.E.E., Ahoudi, H., Nyametso, A.Y., Gnandi, K. dan Lazar, G.O., (2021) Spatial and seasonal variation of trace elements contamination in the sediments of a tropical lagoon ecosystem: the Lake Togo-Lagoon of Aného complex (southern Togo), *Environmental Earth Sciences*, 80(4), hal. 1–22.
- Outa, J.O., Kowenje, C.O., Avenant-Oldewage, A. dan Jirsa, F., (2020) Trace Elements in Crustaceans, Mollusks and Fish in the Kenyan Part of Lake Victoria: Bioaccumulation, Bioindication and Health Risk Analysis, *Archives of Environmental Contamination and Toxicology*, 78(4), hal. 589–603.
- Ozturk, M., Metin, M., Altay, V., Prasad, M.N.V., Gul, A., Bhat, R.A., Darvash, M.A., Hasanuzzaman, M., Nahar, K., Unal, D., Unal, B.T., García-Caparrós, P., Kawano, T., Toderich, K. dan Shahzadi, A., (2023) Role of Rare Earth Elements in Plants, *Plant Molecular Biology Reporter*, 41(3), hal. 345–368.
- Pandey, A.K., Zorić, L., Sun, T., Karanović, D., Fang, P., Borišev, M., Wu, X., Luković, J. dan Xu, P., (2022) The Anatomical Basis of Heavy Metal Responses in Legumes and Their Impact on Plant–Rhizosphere Interactions, *Plants*, 11(19), hal. 1–18.
- Pandion, K., Khalith, S.B.M., Ravindran, B., Chandrasekaran, M., Rajagopal, R., Alfarhan, A., Chang, S.W., Ayyamperumal, R., Mukherjee, A. dan Arunachalam, K.D., (2022) Potential health risk caused by heavy metal

associated with seafood consumption around coastal area, *Environmental Pollution*, 294(December 2021), hal. 118553.

Parente, C.E.T., Lino, A.S., Carvalho, G.O., Pizzochero, A.C., Azevedo-Silva, C.E., Freitas, M.O., Teixeira, C., Moura, R.L., Ferreira Filho, V.J.M. dan Malm, O., (2021) First year after the Brumadinho tailings' dam collapse: Spatial and seasonal variation of trace elements in sediments, fishes and macrophytes from the Paraopeba River, Brazil, *Environmental Research*, 193(November 2020).

Paruruckumani, P.S., Maharajan, A., Ganapiriya, V., Narayanaswamy, Y. dan Jeyasekar, R.R., (2015) Surface Ultrastructural Changes in the Gill and Liver Tissue of Asian Sea Bass *Lates calcarifer* (Bloch) Exposed to Copper, *Biological Trace Element Research*, 168(2), hal. 500–507.

Pasricha, S., Mathur, V., Garg, A., Lenka, S., Verma, K. dan Agarwal, S., (2021) Molecular mechanisms underlying heavy metal uptake, translocation and tolerance in hyperaccumulators-an analysis: Heavy metal tolerance in hyperaccumulators, *Environmental Challenges*, 4(June), hal. 100197.

Patel, K.S., Pandey, P.K., Martín-Ramos, P., Corns, W.T., Varol, S., Bhattacharya, P. dan Zhu, Y., (2023) A review on arsenic in the environment: bio-accumulation, remediation, and disposal, *RSC Advances*, 13(22), hal. 14914–14929.

Patra, A.C., Lenka, P., Sahoo, S.K., Jha, S.K. dan Kulkarni, M.S., (2020) Probing rare earth element distributions in soils of the mineralized Singhbhum region in India using INAA, *Applied Radiation and Isotopes*, 166(April), hal. 109360.

Pavlov, S.S., Dmitriev, A.Y. dan Frontasyeva, M. V., (2016) Automation system for neutron activation analysis at the reactor IBR-2, Frank Laboratory of Neutron Physics, Joint Institute for Nuclear Research, Dubna, Russia, *Journal of Radioanalytical and Nuclear Chemistry*, 309(1), hal. 27–38.

Peana, M., Medici, S., Dadar, M., Zoroddu, M.A., Pelucelli, A., Chasapis, C.T. dan Bjørklund, G., (2021) Environmental barium: potential exposure and health-hazards, *Archives of Toxicology*, 95(8), hal. 2605–2612.

Peña-Fernández, A., del Carmen Lobo-Bedmar, M. dan González-Muñoz, M.J., (2017) Effects of sex on the levels of metals and metalloids in the hair of a group of healthy Spanish adolescents (13 to 16 years old), *Environmental Science and Pollution Research*, 24(30), hal. 23666–23678.

Peng, F.J., Emond, C., Hardy, E.M., Sauvageot, N., Alkerwi, A., Lair, M.L. dan Appenzeller, B.M.R., (2021) Population-based biomonitoring of exposure to persistent and non-persistent organic pollutants in the Grand Duchy of Luxembourg: Results from hair analysis, *Environment International*, 153.

Pereira, R., Leite, E., Raimundo, J., Guilherme, S., Puga, S., Pinto-Ribeiro, F., Santos, M.A., Canário, J., Almeida, A., Pacheco, M. dan Pereira, P., (2018) Metals(loids) targeting fish eyes and brain in a contaminated estuary - Uncovering neurosensory (un)susceptibility through bioaccumulation, antioxidant and morphometric profiles, *Marine Environmental Research*, 140(July), hal. 403–411.

- Perera, W.P.R.T., Dayananda, M.D.N.R., Dissanayake, D.M.U.C., Rathnasekara, R.A.S.D., Botheju, W.S.M., Liyanage, J.A., Weragoda, S.K. dan Kularathne, K.A.M., (2021) Risk Assessment of Trace Element Contamination in Drinking Water and Agricultural Soil: A Study in Selected Chronic Kidney Disease of Unknown Etiology (CKDu) Endemic Areas in Sri Lanka, *Journal of Chemistry*, 2021.
- Popov, M., Kudrna, J., Lhotská, M., Hnilička, F., Tunklová, B., Zemanová, V., Kubeš, J., Vachová, P., Česká, J., Praus, L., Štengl, K. dan Krucký, J., (2023) Arsenic Soil Contamination and Its Effects on 5-Methylcytosine Levels in Onions and Arsenic Distribution and Speciation, *Toxics*, 11(3).
- Pradhap, D., Gandhi, K.S., Magesh, N.S., Peter, T.S., Sadhu, C., Silva, J.D., Godson, P.S., Krishnakumar, S. dan Saravanan, P., (2020) Trace element concentrations and their potential ecological risk in the reef sediments of coral islands, Vembar group of islands, Gulf of Mannar, India, *Marine Pollution Bulletin*, 160(May), hal. 111607.
- Prakoso, K.I., (2021) Affecting factors of shallots production level in Wanasari sub-district Brebes regency, *Business and Economic Analysis Journal*, 1(1), hal. 27–37.
- Protano, C., Astolfi, M.L., Marconi, E., Antonucci, A., Canepari, S., Piamonti, D., Brunori, M. dan Vitali, M., (2020) Occupational Exposure Assessment of Major and Trace Elements in Human Scalp Hair Among a Group of Eritrean Workers, *Biological Trace Element Research*, 197(1), hal. 89–100.
- Provin, T.L. dan Mcfarland, M.L., (2013) Essential nutrient for plants, *The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas Cooperating*, hal. 793–794.
- Qian, L., Zhang, C., Zuo, F., Zheng, L., Li, D. dan Zhang, A., (2019) Effects of fertilizers and pesticides on the mineral elements used for the geographical origin traceability of rice, *Journal of Food Composition and Analysis*, 83, hal. 103276–103283.
- Qin, C., Yuan, X., Xiong, T., Tan, Y.Z. dan Wang, H., (2020) Physicochemical properties, metal availability and bacterial community structure in heavy metal-polluted soil remediated by montmorillonite-based amendments, *Chemosphere*, 261, hal. 128010.
- Qin, X., Zhao, P., Liu, H., Nie, Z., Zhu, J., Qin, S. dan Li, C., (2022) Selenium inhibits cadmium uptake and accumulation in the shoots of winter wheat by altering the transformation of chemical forms of cadmium in soil, *Environmental Science and Pollution Research*, 29(6), hal. 8525–8537.
- Qin, Y., Xu, C., Li, W., Jian, B., Wu, B., Chen, M., Sun, H. dan Hong, H., (2021) Metal/metalloid levels in hair of Shenzhen residents and the associated influencing factors, *Ecotoxicology and Environmental Safety*, 220(5), hal. 112375.
- Raeeszadeh, M., Gravandi, H. dan Akbari, A., (2022) Determination of some heavy metals levels in the meat of animal species (sheep, beef, turkey, and ostrich) and carcinogenic health risk assessment in Kurdistan province in the west of

Iran, *Environmental Science and Pollution Research*, 29(41), hal. 62248–62258.

Rahman, M.S., Ahmed, Z., Seefat, S.M., Alam, R., Islam, A.R.M.T., Choudhury, T.R., Begum, B.A. dan Idris, A.M., (2022) Assessment of heavy metal contamination in sediment at the newly established tannery industrial Estate in Bangladesh: A case study, *Environmental Chemistry and Ecotoxicology*, 4(September 2021), hal. 1–12.

Rahman, M.S., Reza, A.H.M.S., Siddique, M.A.B., Akbor, M.A. dan Hasan, M., (2023) Accumulation of arsenic and other metals in soil and human consumable foods of Meherpur district, southwestern Bangladesh, and associated health risk assessment, *Environmental Sciences Europe*, 35(1).

Rajatheja, M.K.J.C., Chandrajith, R., Bentota, A. dan Jayasinghe, G.Y., (2021) A Comparative Assessment of Trace Element Accumulation in Native and Improved Rice (*Oryza sativa* L.) Varieties Grown Under Different Conditions of Fertilizer Application, *Biological Trace Element Research*, 199(3), hal. 1153–1160.

Rani, S., Ahmed, M.K., Xiongzi, X., Keliang, C., Islam, M.S. dan Habibullah-Al-Mamun, M., (2021) Occurrence, spatial distribution and ecological risk assessment of trace elements in surface sediments of rivers and coastal areas of the East Coast of Bangladesh, North-East Bay of Bengal, *Science of the Total Environment*, 801, hal. 149782.

Rao, M., Li, X., Xu, X., Zhang, D., Ma, J., Huang, J., Xu, J., Zheng, Q., Ji, J. dan Lu, S., (2023) Trace elements in aquatic products from Shenzhen, China and their implications for human exposure, *Science of the Total Environment*, 885(March), hal. 163726.

Raper, F.P., (2001) *Toxicological profile for cobalt*, Agency for Toxic Substances and Disease Registry.

Rashaid, A.H.B., Nusair, S.D., Alqhazo, M.T., Adams, J.B., Abu-Dalo, M.A. dan Bashtawi, M.A., (2021) Heavy metals and trace elements in scalp hair samples of children with severe autism spectrum disorder: A case-control study on Jordanian children, *Journal of Trace Elements in Medicine and Biology*, 67(5), hal. 126790.

Rasipin, (2011) *Faktor-Faktor yang Berhubungan dengan Kejadian Goiter (Gondok) pada Siswa SD di Wilayah Pertanian, Universitas Diponegoro Semarang*.

Raychaudhuri, M., Raychaudhuri, S., Jena, S.K., Kumar, A. dan Srivastava, R.C., (2014) *WQI to monitor water quality for irrigation and potable use*.

Razzaghi, F., Arthur, E. dan Akbar, A., (2021) Geoderma Evaluating models to estimate cation exchange capacity of calcareous soils, *Geoderma*, 400(April), hal. 115221.

Reboredo, F., Simões, M., Jorge, C., Mancuso, M., Martinez, J., Guerra, M., Ramalho, J.C., Pessoa, M.F., Lidon, F., Mancuso, M. dan Martinez, J., (2018) Metal content in edible crops and agricultural soils due to intensive use of

- fertilizers and pesticides in Terras da Costa de Caparica (Portugal), *Environmental Science and Pollution Research*, hal. 1–11.
- Reboredo, F., Simões, M., Jorge, C., Mancuso, M., Martinez, J., Guerra, M., Ramalho, J.C., Pessoa, M.F., Lidon, F., Mancuso, M. dan Martinez, J., (2019) Metal content in edible crops and agricultural soils due to intensive use of fertilizers and pesticides in Terras da Costa de Caparica (Portugal), *Environmental Science and Pollution Research*, 26, hal. 2512–2522. Tersedia pada: <https://doi.org/10.1007/s11356-018-3625-3>.
- Ren, X., Tang, J., Wang, L. dan Liu, Q., (2021) Microplastics in soil-plant system: effects of nano/microplastics on plant photosynthesis, rhizosphere microbes and soil properties in soil with different residues, *Plant and Soil*, 462(1–2), hal. 561–576.
- Republik Indonesia, (2021) *Peraturan Pemerintah Nomor 22 Tahun 2021 Tentang Penyelenggaraan Perlindungan dan Pengelolaan Lingkungan Hidup, Sekretariat Negara Republik Indonesia*. Tersedia pada: <http://www.jdih.setjen.kemendagri.go.id/>.
- Riaz, M., Kamran, M., Rizwan, M., Ali, S., Parveen, A., Malik, Z. dan Wang, X., (2021) Cadmium uptake and translocation: selenium and silicon roles in Cd detoxification for the production of low Cd crops: a critical review, *Chemosphere*, 273, hal. 129690.
- Rizwan, M., Ali, S., Rehman, M.Z. ur, Rinklebe, J., Tsang, D.C.W., Tack, F.M.G., Abbasi, G.H., Hussain, A., Igalavithana, A.D., Lee, B.C. dan Ok, Y.S., (2021) Effects of selenium on the uptake of toxic trace elements by crop plants: A review, *Critical Reviews in Environmental Science and Technology*, 51(21), hal. 2531–2566.
- Rolfe, E. dan Drost, D., (2022) Shallots in the Garden. Utah State University, hal. 7–9.
- Romero-Crespo, P., Jiménez-Oyola, S., Salgado-Almeida, B., Zambrano-Anchundia, J., Goyburo-Chávez, C., González-Valoys, A. dan Higuera, P., (2023) Trace elements in farmland soils and crops, and probabilistic health risk assessment in areas influenced by mining activity in Ecuador, *Environmental Geochemistry and Health* [Preprint], (0123456789).
- Romo-Pérez, M.L., Weinert, C.H., Egert, B., Franzisky, B.L., Kulling, S.E. dan Zörb, C., (2021) Sodium accumulation has minimal effect on metabolite profile of onion bulbs, *Plant Physiology and Biochemistry*, 168(October), hal. 423–431.
- Rossini-Oliva, S., Abreu, M.M., Santos, E.S. dan Leidi, E.O., (2020) Soil–plant system and potential human health risk of Chinese cabbage and oregano growing in soils from Mn- and Fe-abandoned mines: microcosm assay, *Environmental Geochemistry and Health*, 42(12), hal. 4073–4086.
- Rovai, A.S., Coelho-Jr, C., de Almeida, R., Cunha-Lignon, M., Menghini, R.P., Twilley, R.R., Cintrón-Molero, G. dan Schaeffer-Novelli, Y., (2021) Ecosystem-level carbon stocks and sequestration rates in mangroves in the Cananéia-Iguape lagoon estuarine system, southeastern Brazil, *Forest Ecology*

and Management, 479(August 2020), hal. 118553.

- Rubalingeswari, N., Thulasimala, D., Giridharan, L., Gopal, V., Magesh, N.S. dan Jayaprakash, M., (2021) Bioaccumulation of heavy metals in water, sediment, and tissues of major fisheries from Adyar estuary, southeast coast of India: An ecotoxicological impact of a metropolitan city, *Marine Pollution Bulletin*, 163(November 2020), hal. 111964.
- Ruben, A., (1992) Effect of soil redox potential and pH on nutrient uptake by rice with ...
- Rui, Y., Shen, J., Zhang, F., Yan, Y., Jing, J. dan Meng, Q., (2008) Application of ICP-MS to detecting ten kinds of heavy metals in KCl fertilizer, *Spectroscopy and Spectral Analysis*, 28(10), hal. 2428–2430.
- Rui, Y.K., Shen, J.B. dan Zhang, F.S., (2008) Application of ICP-MS to determination of heavy metal content of heavy metals in two kinds of N fertilizer, *Spectroscopy and Spectral Analysis*, 28(10), hal. 2425–2427.
- Saadatmand, M., Dadolahi-Sohrab, A., Tavani, M.B., Khazaei, S.H. dan Saadatmand, F., (2022) Monitoring heavy metal contamination on the Iranian coasts of the Persian Gulf using biological indicators: risk assessment for the consumers, *Environmental Monitoring and Assessment*, 194(2).
- Sadeghi, P., Loghmani, M., Yousuf, D.J. dan Taghizadeh Rahmat Abadi, Z., (2021) Ecological and human health risk assessment of trace element pollution in sediments and five important commercial fishes of the Oman Sea, *Marine Pollution Bulletin*, 173(PA), hal. 112962.
- Saha, P. dan Paul, B., (2018) Suitability Assessment of Surface Water Quality with Reference to Drinking, Irrigation and Fish Culture: A Human Health Risk Perspective, *Bulletin of Environmental Contamination and Toxicology*, 101(2), hal. 262–271.
- Salam, M.A., Paul, S.C., Mohamad Zain, R.A.M., Bhowmik, S., Nath, M.R., Siddiqua, S.A., Aka, T. Das, Iqbal, M.A., Kadir, W.R., Ahamad, R.B., Khaleque, M.A., Rak, A.E. dan Amin, M.F.M., (2020) Trace metals contamination potential and health risk assessment of commonly consumed fish of Perak River, Malaysia, *PLoS ONE*, 15(10 October), hal. 1–19.
- Salim, M., Kumar, P., Gupta, M.K. dan Kumar, S., (2015) Seasonal Variation in some Chemical Characteristics of the Soil under different Land Uses of Jhilmil Jheel Wetland, Haridwar-Uttarakhand, India, *International Journal of Scientific and Research Publications*, 5(10), hal. 1–9. Tersedia pada: www.ijsrp.org.
- Salim, N.A.A., Daud, N.M., Griboff, J. dan Harun, A.R., (2023) Elemental Assessments in Paddy Soil for Geographical Traceability of Rice from Peninsular Malaysia, *Rice Science*, 30(5), hal. 486–498.
- Salvatore, M.M., Siciliano, A., Staropoli, A., Vinale, F., Nicoletti, R., DellaGreca, M., Guida, M., Salvatore, F., Iuliano, M., Andolfi, A. dan De Tommaso, G., (2022) Interaction of the Fungal Metabolite Harzianic Acid with Rare-Earth Cations (Pr³⁺, Eu³⁺, Ho³⁺, Tm³⁺), *Molecules*, 27(19), hal. 1–21.
- Santiago-Rosario, L.Y., Harms, K.E., Elder, B.D., Hart, P.B. dan Dassanayake,

- M., (2021) No escape: The influence of substrate sodium on plant growth and tissue sodium responses, *Ecology and Evolution*, 11(20), hal. 14231–14249.
- dos Santos Teixeira, A.F., Silva, S.H.G., Soares de Carvalho, T., Silva, A.O., Azarias Guimarães, A. dan de Souza Moreira, F.M., (2021) Soil physicochemical properties and terrain information predict soil enzymes activity in phytophysionomies of the Quadrilátero Ferrífero region in Brazil, *Catena*, 199(February 2020).
- Saptana, Gunawan, E., Perwita, A.D., Sukmaya, S.G., Darwis, V., Ariningsih, E. dan Ashari, (2021) The competitiveness analysis of shallot in Indonesia: A Policy Analysis Matrix, *PLoS ONE*, 16(9 September), hal. 1–20.
- Schmidt, W., Thomine, S. dan Buckhout, T.J., (2020) Iron Nutrition and Interactions in Plants, *Frontiers in Plant Science*, 10(January), hal. 1–4.
- Schönenberger, U.T., Simon, J. dan Stamm, C., (2022) Are spray drift losses to agricultural roads more important for surface water contamination than direct drift to surface waters?, *Science of the Total Environment*, 809.
- Semenova, Y., Zhunussov, Y., Pivina, L., Abisheva, A., Tinkov, A., Belikhina, T., Skalny, A., Zhanaspayev, M., Bulegenov, T., Glushkova, N., Lipikhina, A., Dauletyarova, M., Zhunussova, T. dan Bjørklund, G., (2019) Trace element biomonitoring in hair and blood of occupationally unexposed population residing in polluted areas of East Kazakhstan and Pavlodar regions, *Journal of Trace Elements in Medicine and Biology*, 56(May), hal. 31–37.
- Setia, R., Lamba, S., Chander, S., Kumar, V., Singh, R., Litoria, P.K., Singh, R.P. dan Pateriya, B., (2021) Spatio-temporal variations in water quality, hydrochemistry and its controlling factors in a perennial river in India, *Applied Water Science*, 11(11), hal. 1–15.
- Seyed Jalali, S.A., Navidi, M.N., Seyed Mohammadi, J., Meymand, A.Z. dan Mohammad Esmail, Z., (2019) Prediction of Soil Cation Exchange Capacity Using Different Soil Parameters by Intelligent Models, *Communications in Soil Science and Plant Analysis*, 50(17), hal. 2123–2139.
- Shaabani, Z., Esmaili-sari, A., Moradi, A.M., Taghavi, L. dan Farsad, F., (2022) Possible health risk assessment for heavy metal concentrations in water, sediment, and fish species and Turkmen pregnant women's biomonitoring in Miankaleh Peninsula, Iran, *Environmental Science and Pollution Research*, 29(25), hal. 37187–37203.
- Shahid, S.A., Zaman, M. dan Heng, L., (2018) *Guideline for Salinity Assessment, Mitigation and Adaptation Using Nuclear and Related Techniques*, Springer.
- Shahjahan, M., Taslima, K., Rahman, M.S., Al-Emran, M., Alam, S.I. dan Faggio, C., (2022) Effects of heavy metals on fish physiology – A review, *Chemosphere*, 300(April), hal. 134519.
- Shamrikova, E. V., Kondratenok, B.M., Tumanova, E.A., Vanchikova, E. V., Lapteva, E.M., Zonova, T. V., Lu-Lyan-Min, E.I., Davydova, A.P., Libohova, Z. dan Suvannang, N., (2022) Transferability between soil organic matter measurement methods for database harmonization, *Geoderma*, 412(August

2021), hal. 115547.

- Shil, S., Singh, U.K. dan Mehta, P., (2019) Water quality assessment of a tropical river using water quality index (WQI), multivariate statistical techniques and GIS, *Applied Water Science*, 9(7), hal. 1–21.
- Shiry, N., Derakhshesh, N., Gholamhosseini, A., Pouladi, M. dan Faggio, C., (2021) Heavy Metal Concentrations in *Cynoglossus arel* (Bloch & Schneider, 1801) and Sediment in the Chabahar Bay, Iran, *International Journal of Environmental Research*, 15(5), hal. 773–784.
- Shojaei, Saeed, Jafarpour, A., Shojaei, Siroos, Gyasi-Agyei, Y. dan Rodrigo-Comino, J., (2021) Heavy metal uptake by plants from wastewater of different pulp concentrations and contaminated soils, *Journal of Cleaner Production*, 296, hal. 126345.
- Shomar, B.H., (2006) Trace elements in major solid-pesticides used in the Gaza Strip, *Chemosphere*, 65(5), hal. 898–905.
- Shtangeeva, I., (2017) Bromine Accumulation in Some Crops and Grasses as Determined by Neutron Activation Analysis, *Communications in Soil Science and Plant Analysis*, 48(19), hal. 2338–2346.
- Shtangeeva, I., Perämäki, P., Niemelä, M., Kurashov, E. dan Krylova, Y., (2018) Potential of wheat (*Triticum aestivum* L.) and pea (*Pisum sativum*) for remediation of soils contaminated with bromides and PAHs, *International Journal of Phytoremediation*, 20(6), hal. 560–566.
- Shtangeeva, I., Bērtiņš, M., Vīksna, A., Chelibanov, V. dan Golovin, A., (2021) Stress Effects of Rubidium on Two Plant Species (Field Experiment), *Russian Journal of Plant Physiology*, 68, hal. S131–S139.
- Shtangeeva, I., (2022) Accumulation of scandium, cerium, europium, hafnium, and tantalum in oats and barley grown in soils that differ in their characteristics and level of contamination, *Environmental Science and Pollution Research*, 29(27), hal. 40839–40853.
- Shtangeeva, I., Niemelä, M. dan Perämäki, P., (2019) Effects of bromides of potassium and ammonium on some crops, *Journal of Plant Nutrition*, 42(18), hal. 2209–2220.
- Shtangeeva, I., Niemelä, M. dan Perämäki, P., (2022) Bioavailability and toxicity of bromine and neodymium for plants grown in soil and water, *Environmental Geochemistry and Health*, 44(1), hal. 285–293.
- Sidoruk, M., (2023) Pollution and Potential Ecological Risk Evaluation of Heavy Metals in the Bottom Sediments: A Case Study of Eutrophic Bukwałd Lake Located in an Agricultural Catchment, *International Journal of Environmental Research and Public Health*.
- Sihlahla, M., Mouri, H. dan Nomngongo, P.N., (2019) Uptake of trace elements by vegetable plants grown on agricultural soils: Evaluation of trace metal accumulation and potential health risk, *Journal of African Earth Sciences*, 160(March), hal. 103635–103641.
- Sihlahla, M., Mouri, H. dan Nomngongo, P.N., (2020) Assessment of

bioavailability and mobility of major and trace elements in agricultural soils collected in Port St Johns, Eastern Cape, South Africa using single extraction procedures and pseudo-total digestion, *Journal of Environmental Health Science and Engineering*, 18(2), hal. 1615–1628.

Silachyov, I., (2020) Elemental analysis of vegetation samples by INAA internal standard method, *Journal of Radioanalytical and Nuclear Chemistry*, 324(1), hal. 97–108.

Silva, S., Baffi, C., Spalla, S., Cassinari, C. dan Lodigiani, P., (2010) Method for the determination of CEC and exchangeable bases in calcareous soils, *Agrochimica*, 54(2), hal. 103–114.

Silva, V., Mol, H.G.J., Zomer, P., Tienstra, M., Ritsema, C.J. dan Geissen, V., (2019) Pesticide residues in European agricultural soils – A hidden reality unfolded, *Science of the Total Environment*, 653, hal. 1532–1545.

Simsek, C. dan Gunduz, O., (2007) IWQ Index: A GIS-integrated technique to assess irrigation water quality, *Environmental Monitoring and Assessment*, 128(1–3), hal. 277–300.

Simukoko, C.K., Mwakalapa, E.B., Bwalya, P., Muzandu, K., Berg, V., Mutoloki, S., Polder, A. dan Lyche, J.L., (2022) Assessment of heavy metals in wild and farmed tilapia (*Oreochromis niloticus*) on Lake Kariba, Zambia: implications for human and fish health, *Food Additives and Contaminants - Part A Chemistry, Analysis, Control, Exposure and Risk Assessment*, 39(1), hal. 74–91.

Singh, B.N. dan Kumar, K., (1935) An analysis of the influence of season on photosynthesis in the tropics, *Proceedings of the Indian Academy of Sciences - Section B*, 2(5), hal. 437–456.

Singh, P.K., Shikha, D. dan Saw, S., (2023) Evaluation of potential toxic heavy metal contamination in soil, fly ash, vegetables and grain crops along with associated ecological and health risk assessment of nearby inhabitants of a thermal power station in Jharkhand (India), *Environmental Science and Pollution Research*, 30(3), hal. 7752–7769.

Skalny, A. V., Kaminskaya, G.A., Krekesheva, T.I., Abikenova, S.K., Skalnaya, M.G., Bykov, A.T. dan Tinkov, A.A., (2018) Assessment of hair metal levels in aluminium plant workers using scalp hair ICP-DRC-MS analysis, *Journal of Trace Elements in Medicine and Biology*, 50(6), hal. 658–663.

Sleimi, N., Kouki, R., Hadj Ammar, M., Ferreira, R. dan Pérez-Clemente, R., (2021) Barium effect on germination, plant growth, and antioxidant enzymes in *Cucumis sativus* L. plants, *Food Science and Nutrition*, 9(4), hal. 2086–2094.

Smith, J.P., Boyd, T.J., Cragan, J. dan Ward, M.C., (2021) Dissolved rubidium to strontium ratio as a conservative tracer for wastewater effluent-sourced contaminant inputs near a major urban wastewater treatment plant, *Water Research*, 205(September), hal. 117691.

Soetrisno, F.N. dan Delgado-Saborit, J.M., (2020) Chronic exposure to heavy

- metals from informal e-waste recycling plants and children's attention, executive function and academic performance, *Science of the Total Environment*, 717, hal. 137099.
- Sorce, C., Bellini, E., Bacchi, F. dan Sanità di Toppi, L., (2023) Photosynthetic Efficiency of *Marchantia polymorpha* L. in Response to Copper, Iron, and Zinc, *Plants*, 12(15).
- Sorokina, O.A., (2021) Major and trace element geochemistry of bulk composition of recent sediments from upper and middle Amur River (Eastern Siberia, Russia): description of sorting and transporting processes of river sediments, *Environmental Earth Sciences*, 80(7), hal. 1–13.
- de Souza Cardoso, A.A., Nunes, A.P.P., Batista, É.R., Nataren, L. del C.H., Nunes, M.F.P.N., Gomes, F.T. de L., Leite, A. do A., Guilherme, L.R.G., Faquin, V. dan Silva, M.L. de S., (2023) Sulfate supply decreases barium availability, uptake, and toxicity in lettuce plants grown in a tropical Ba-contaminated soil, *Environmental Science and Pollution Research*, 30(18), hal. 53938–53947.
- Sparks, D.L., Page, A.L., Helmke, P.A., Leoppert, R.H., Soltanpout, P.N., Tabatabai, M.A., Johnston, J.T. dan Sumner, M.E., (1996) *Methods of Analysis. Part 3 - Chemical Methods*.
- Srivastava, A., Chahar, V., Sharma, V., Acharya, R., Ajith, N., Swain, K.K., Knolle, F., Maekawa, M., Schnug, E. dan Srivastava, T., (2020) Quantification of multielements for mobilization study in water and sediments of Satluj River and Harike Wetland using Inductively Coupled Plasma Mass Spectrometry and Instrumental Neutron Activation Analysis, *Journal of Radioanalytical and Nuclear Chemistry*, 325(3), hal. 959–966.
- Staniszewski, R., Niedzielski, P., Sobczyński, T. dan Sojka, M., (2022) Trace Elements in Sediments of Rivers Affected by Brown Coal Mining: A Potential Environmental Hazard, *Energies*, 15(8).
- Stoji, N., Pezo, L., Lonč, B., Pucarevi, M. dan Filipovi, V., (2023) Prediction of the Impact of Land Use and Soil Type on Concentrations of Heavy Metals and Phthalates in Soil Based, *Toxics*, 11(269).
- Subbarao, G. V., Ito, O., Berry, W.L. dan Wheeler, R.M., (2003) Sodium - A Functional Plant Nutrient, *Critical Reviews in Plant Sciences*, 22(5), hal. 391–416.
- Sun, T., Wang, Y., Hui, D., Jing, X. dan Feng, W., (2020) Soil properties rather than climate and ecosystem type control the vertical variations of soil organic carbon, microbial carbon, and microbial quotient, *Soil Biology and Biochemistry*, 148(December 2019), hal. 107905.
- Sun, W., Ye, J., Lin, H., Yu, Q., Wang, Q., Chen, Z., Ma, Jinchuan dan Ma, Junwei, (2023) Dynamic characteristics of heavy metal accumulation in agricultural soils after continuous organic fertilizer application: Field-scale monitoring, *Chemosphere*, 335(June), hal. 139051.
- Suripto, I., (2017) *Pemkab brebes jadi pengguna pestisida tertinggi se-asean*, *detikNews*.

- Sushant, K.S. dan Ghosh, A.K., (2010) Effect of Arsenic on Photosynthesis , Growth and its Accumulation in the Tissues of *Allium cepa* (Onion), *International Journal of Environmental Engineering and Management*, 1(1), hal. 39–50.
- Szostek, M., Matłok, N., Kosowski, P., Ilek, A. dan Balawejder, M., (2023) Changes in Speciation and Bioavailability of Trace Elements in Sewage Sludge after the Ozonation Process, *Agriculture (Switzerland)*, 13(4), hal. 1–15.
- Szynkowska, M.I., Marcinek, M., Pawlaczyk, A. dan Albińska, J., (2015) Human hair analysis in relation to similar environmental and occupational exposure, *Environmental Toxicology and Pharmacology*, 40(2), hal. 402–408.
- Taghavi, M., Darvishiyan, M., Momeni, M., Eslami, H., Fallahzadeh, R.A. dan Zarei, A., (2023) Ecological risk assessment of trace elements (TEs) pollution and human health risk exposure in agricultural soils used for saffron cultivation, *Scientific Reports*, 13(1), hal. 1–16.
- Tahir, M.A., Shaheen, H. dan Rathinasabapathi, B., (2022) Health risk associated with heavy metal contamination of vegetables grown in agricultural soil of Siran valley, Mansehra, Pakistan—a case study, *Environmental Monitoring and Assessment*, 194(8).
- Takarina, N.D., Purwiyanto, A.I.S. dan Suteja, Y., (2021) Cadmium (Cd), Copper (Cu), and Zinc (Zn) levels in commercial and non-commercial fishes in the Blanakan River Estuary, Indonesia: A preliminary study, *Marine Pollution Bulletin*, 170(May), hal. 112607.
- Talabi, A.T., Odunaike, K.O., Akinyemi, L.P. dan Bashiru, B.O., (2020) Investigation for heavy metals in river waters in the federal capital territory, North Central of Nigeria, *International Journal of Energy and Water Resources*, 4(2), hal. 213–219.
- Tan, Y., Peng, B., Wu, Y., Xiong, L., Sun, J., Peng, G. dan Bai, X., (2021) Human health risk assessment of toxic heavy metal and metalloid intake via consumption of red swamp crayfish (*Procambarus clarkii*) from rice-crayfish co-culture fields in China, *Food Control*, 128(March), hal. 108181–108189.
- Tang, L., Deng, S., Tan, D., Long, J. dan Lei, M., (2019) Heavy metal distribution, translocation, and human health risk assessment in the soil-rice system around Dongting Lake area, China, *Environmental Science and Pollution Research*, 26(17), hal. 655–665.
- Tano, B.F., Brou, C.Y., Dossou-Yovo, E.R., Saito, K., Futakuchi, K., Wopereis, M.C.S. dan Husson, O., (2020a) Spatial and temporal variability of soil redox potential, pH and electrical conductivity across a toposequence in the savanna of west Africa, *Agronomy*, 10(11), hal. 1–22.
- Tano, B.F., Brou, C.Y., Dossou-Yovo, E.R., Saito, K., Futakuchi, K., Wopereis, M.C.S. dan Husson, O., (2020b) Spatial and temporal variability of soil redox potential, pH and electrical conductivity across a toposequence in the savanna of west Africa, *Agronomy*, 10(11).
- Thakur, M., Praveen, S., Divte, P.R., Mitra, R., Kumar, M., Gupta, C.K., Kalidindi,

- U., Bansal, R., Roy, S., Anand, A. dan Singh, B., (2022) Metal tolerance in plants: Molecular and physicochemical interface determines the “not so heavy effect” of heavy metals, *Chemosphere*, 287(P1), hal. 131957.
- Thien, B.N., Ba, V.N., Man, M.T. dan Hong Loan, T.T., (2021a) Analysis of the soil to food crops transfer factor and risk assessment of multi-elements at the suburban area of Ho Chi Minh city, Vietnam using instrumental neutron activation analysis (INAA), *Journal of Environmental Management*, 291(April), hal. 112637–112645.
- Thien, B.N., Ba, V.N., Man, M.T. dan Hong Loan, T.T., (2021b) Analysis of the soil to food crops transfer factor and risk assessment of multi-elements at the suburban area of Ho Chi Minh city, Vietnam using instrumental neutron activation analysis (INAA), *Journal of Environmental Management*, 291(March), hal. 112637.
- Tian, M., Chen, S., Wang, J., Luo, Y., Luo, X.-J. dan Mai, B.-X., (2012) Plant Uptake of Atmospheric Brominated Flame Retardants at an E-Waste Site in Southern China, *Environmental Science and Technology*, 46, hal. 2708–2714.
- Tian, P., Zhan, P., Tian, H., Wang, P., Lu, C., Zhao, Y., Ni, R. dan Zhang, Y., (2021a) Analysis of volatile compound changes in fried shallot (*Allium cepa* L. var. *aggregatum*) oil at different frying temperatures by GC–MS, OAV, and multivariate analysis, *Food Chemistry*, 345(November 2020), hal. 128748.
- Tian, P., Zhan, P., Tian, H., Wang, P., Lu, C., Zhao, Y., Ni, R. dan Zhang, Y., (2021b) Analysis of volatile compound changes in fried shallot (*Allium cepa* L. var. *aggregatum*) oil at different frying temperatures by GC–MS, OAV, and multivariate analysis, *Food Chemistry*, 345(September 2020), hal. 128748.
- Tian, S., Li, Z., Wang, Z., Jiang, E., Wang, W. dan Sun, M., (2021) Mineral composition and particle size distribution of river sediment and loess in the middle and lower Yellow River, *International Journal of Sediment Research*, 36(3), hal. 392–400.
- Töre, Y., Ustaoglu, F., Tepe, Y. dan Kalipci, E., (2021) Levels of toxic metals in edible fish species of the Tigris River (Turkey); Threat to public health, *Ecological Indicators*, 123.
- Tóth, G., Hermann, T., Da Silva, M.R. dan Montanarella, L., (2016) Heavy metals in agricultural soils of the European Union with implications for food safety, *Environment International*, 88, hal. 299–309.
- Tousi, E.T., (2022) Determining the mobility of some essential elements in saffron (*Crocus sativus* L.) by the neutron activation analysis, *Baghdad Science Journal*, 19(2), hal. 283–296.
- Touzani, I., Fikri-Benbrahim, K., El Machrafi, I., Flouchi, R. dan Boudouch, O., (2022) Wastewater and sediments contamination by metallic trace elements in an urban watercourse of Taza city (Morocco), *International Journal of Environmental Science and Technology*, 20(7), hal. 7253–7262.
- Tözsér, D., Horváth, R., Simon, E. dan Magura, T., (2023) Heavy metal uptake by plant parts of *Populus* species: a meta-analysis, *Environmental Science and*

Pollution Research, 30(26), hal. 69416–69430.

- Traina, A., Bono, G., Bonsignore, M., Falco, F., Giuga, M., Quinci, E.M., Vitale, S. dan Sprovieri, M., (2019) Heavy metals concentrations in some commercially key species from Sicilian coasts (Mediterranean Sea): Potential human health risk estimation, *Ecotoxicology and Environmental Safety*, 168(July 2018), hal. 466–478.
- Tränkner, M., Tavakol, E. dan Jákli, B., (2018) Functioning of potassium and magnesium in photosynthesis, photosynthate translocation and photoprotection, *Physiologia Plantarum*, 163(3), hal. 414–431.
- Trziszka, T., Dobrzański, Z., Chojnacka, K., Bubel, A., Ben, H., Korczynski, M., Konkol, D. dan Tronina, W., (2021) Assessment of macro-, micro-, trace, and ultratrace element concentration in green-legged partridge hens' eggs from a free-range system, *Agriculture*, 11(473), hal. 1–13.
- Turra, C., Fernandes, E.A.D.N., Bacchi, M.A., Sarriés, G.A. dan Reyes, A.E.L., (2020) Temporal variability of rare earth elements in Ultisol soil under citrus plants, *Journal of Radioanalytical and Nuclear Chemistry*, 324(1), hal. 219–224.
- Tyagi, N., Upadhyay, M.K., Majumdar, A., Pathak, S.K., Giri, B., Jaiswal, M.K. dan Srivastava, S., (2022) An assessment of various potentially toxic elements and associated health risks in agricultural soil along the middle Gangetic basin, India, *Chemosphere*, 300(December 2021), hal. 134433.
- U.S. EPA, (2011) *Exposure Factors Handbook*. 2011 ed. Washington, DC: U.S. EPA. Tersedia pada: www.epa.gov.
- Uddin, M.K., (2017) A review on the adsorption of heavy metals by clay minerals, with special focus on the past decade, *Chemical Engineering Journal*, 308, hal. 438–462.
- Uddin, M.M., Zakeel, M.C.M., Zavahir, J.S., Marikar, F.M.M.T. dan Jahan, I., (2021) Heavy metal accumulation in rice and aquatic plants used as human food: A general review, *Toxics*, 9(12).
- Ugulu, I., Ahmad, K., Khan, Z.I., Munir, M., Wajid, K. dan Bashir, H., (2021) Effects of organic and chemical fertilizers on the growth, heavy metal/metalloid accumulation, and human health risk of wheat (*Triticum aestivum* L.), *Environmental Science and Pollution Research*, 28(10), hal. 12533–12545.
- Ukwattage, N.L., Lakmalie, U.V. dan Gamage, R.P., (2021) Soil and plant growth response and trace elements accumulation in sweet corn and snow pea grown under fresh and carbonated coal fly ash amendment, *Agronomy Journal*, 113(4), hal. 3147–3158.
- Uprety, D., Hejzman, M., Száková, J., Kunzová, E. dan Tlustoš, P., (2009) Concentration of trace elements in arable soil after long-term application of organic and inorganic fertilizers, *Nutrient Cycling in Agroecosystems*, 85(3), hal. 241–252.
- USEPA, (2001) *Baseline human health risk assessment Vasquez Boulevard and I-*

70 superfund site Denver, Co.

USEPA, (2004) *Risk assessment guidance for superfund (RAGS). Volume I. Human health evaluation manual (HHEM). Part E. Supplemental guidance for dermal risk assessment, U.S. Environmental Protection Agency.*

USEPA, I., (2021) *Integrated Risk Information System*. Tersedia pada: <https://www.epa.gov/iris> (Diakses: 30 Oktober 2021).

USEPA, I., (2022) *Integrated Risk Information System*. Tersedia pada: <https://www.epa.gov/iris> (Diakses: 5 Januari 2022).

Usman, Q.A., Muhammad, S., Ali, W., Yousaf, S. dan Jadoon, I.A.K., (2021) Spatial distribution and provenance of heavy metal contamination in the sediments of the Indus River and its tributaries, North Pakistan: Evaluation of pollution and potential risks, *Environmental Technology and Innovation*, 21, hal. 101184.

Uwiringiyimana, E., Gao, J., Zhang, D., Biswash, M.R. dan Shi, Y. xiao xiao, (2023) Bioaccumulation and translocation of Hg and Cr by tobacco in Sichuan Province, China: understanding the influence of soil pH, *Environmental Monitoring and Assessment*, 195(10).

Valavanidis, A. dan Vlachogianni, T., (2010) Metal pollution in ecosystems: Ecotoxicology studies and risk assessment in the marine environment, *Science advances on Environment, Toxicology & Ecotoxicology issues*, hal. 1–15.

Valentini, M., dos Santos, G.B. dan Muller Vieira, B., (2021) Multiple linear regression analysis (MLR) applied for modeling a new WQI equation for monitoring the water quality of Mirim Lagoon, in the state of Rio Grande do Sul—Brazil, *SN Applied Sciences*, 3(1), hal. 1–11.

Valkova, E., Atanasov, V., Tzanova, M. dan Denev, S., (2018) Mn and Zn content in eggs and musculature of rainbow trout (*Oncorhynchus Mykiss* W.) treated with fungicide mancozeb and pigment astaxanthin, *Trakia Journal of Sciences*, 16(4), hal. 275–283.

Varol, M., Gündüz, K. dan Sünbül, M.R., (2021) Pollution status, potential sources and health risk assessment of arsenic and trace metals in agricultural soils: A case study in Malatya province, Turkey, *Environmental Research*, 202(April).

Varol, M., Kaçar, E. dan Akın, H.K., (2020) Accumulation of trace elements in muscle, gill and liver of fish species (*Capoeta umbla* and *Luciobarbus mystaceus*) in the Tigris River (Turkey), and health risk assessment, *Environmental Research*, 186(January), hal. 109570.

Varrica, D., Tamburo, E. dan Alaimo, M.G., (2022) Levels of trace elements in human hair samples of adolescents living near petrochemical plants, *Environmental Geochemistry and Health*, 44(11), hal. 3779–3797.

Vatansever, R., Ozyigit, I.I. dan Filiz, E., (2017) Essential and Beneficial Trace Elements in Plants, and Their Transport in Roots: a Review, *Applied Biochemistry and Biotechnology*, 181(1), hal. 464–482.

Vecino, X., Reig, M., Bhushan, B., Gibert, O., Valderrama, C. dan Cortina, J.L., (2019) Liquid fertilizer production by ammonia recovery from treated

- ammonia-rich regenerated streams using liquid-liquid membrane contactors, *Chemical Engineering Journal*, 360(September 2018), hal. 890–899.
- Velasco, H. dan Anjos, R.M., (2021) A review of 137Cs and 40K soil-to-plant transfer factors in tropical plants, *Journal of Environmental Radioactivity*, 235–236(May), hal. 106650.
- Verbeeck, M., Salaets, P. dan Smolders, E., (2020a) Trace element concentrations in mineral phosphate fertilizers used in Europe: A balanced survey, *Science of the Total Environment*, 712, hal. 1–8.
- Verbeeck, M., Salaets, P. dan Smolders, E., (2020b) Trace element concentrations in mineral phosphate fertilizers used in Europe: A balanced survey, *Science of the Total Environment*, 712, hal. 136419.
- Viana, L.F., Kummrow, F., Cardoso, C.A.L., de Lima, N.A., do Amaral Crispim, B., Barufatti, A. dan Florentino, A.C., (2023) Metal bioaccumulation in fish from the Araguari River (Amazon biome) and human health risks from fish consumption, *Environmental Science and Pollution Research*, 30(2), hal. 4111–4122.
- Vinnikov, D., Semizhon, S., Rybina, T., Zaitsev, V., Pleshkova, A. dan Rybina, A., (2018) Occupational exposure to metals and other elements in the tractor production, *PLoS ONE*, 13(12), hal. 1–11.
- Vinothkannan, A., Emmanuel Charles, P., Rajaram, R., Al-Sadoon, M.K. dan Gulnaz, A., (2023) Survey to identify the metal accumulation pathway in humans using hair and nail as biomarkers from fisherfolk population, *Chemosphere*, 319(1), hal. 138020.
- Wahiduzzaman, M., Islam, M.M., Sikder, A.H.F. dan Parveen, Z., (2022) Bioaccumulation and Heavy Metal Contamination in Fish Species of the Dhaleswari River of Bangladesh and Related Human Health Implications, *Biological Trace Element Research*, 200(8), hal. 3854–3866.
- Walker, D.C., Antoine, J.M.R., Williams, J.A., Grant, C.N. dan Voutchkov, M.K., (2022) Elemental investigation of renal calculi in Jamaica by instrumental neutron activation analysis (INAA), *Journal of Radioanalytical and Nuclear Chemistry*, 331(1), hal. 547–558.
- Wang, A., Wang, Z., Liu, J., Xu, N. dan Li, H., (2021) The Sr/Ba ratio response to salinity in clastic sediments of the Yangtze River Delta, *Chemical Geology*, 559(October 2020), hal. 119923.
- Wang, F., Guan, Q., Tian, J., Lin, J., Yang, Y., Yang, L. dan Pan, N., (2020) Contamination characteristics, source apportionment, and health risk assessment of heavy metals in agricultural soil in the Hexi Corridor, *Catena*, 191(March), hal. 104573.
- Wang, H., Yilihamu, Q., Yuan, M., Bai, H., Xu, H. dan Wu, J., (2020) Prediction models of soil heavy metal(loid)s concentration for agricultural land in Dongli: A comparison of regression and random forest, *Ecological Indicators*, 119(July).
- Wang, J. dan Hu, Y., (2023) Translocation and accumulation of heavy metals from

the rhizosphere soil to the medicinal plant (*Paeonia Lactiflora* Pall.) grown in Bozhou, Anhui Province, China, *Environmental Pollutants and Bioavailability*, 35(1).

- Wang, M.R., Hamborg, Z., Blystad, D.R. dan Wang, Q.C., (2021) Combining thermotherapy with meristem culture for improved eradication of onion yellow dwarf virus and shallot latent virus from infected in vitro-cultured shallot shoots, *Annals of Applied Biology*, 178(3), hal. 442–449.
- Wang, X., Liu, W., Li, Z., Teng, Y., Christie, P. dan Luo, Y., (2020) Effects of long-term fertilizer applications on peanut yield and quality and plant and soil heavy metal accumulation, *Pedosphere*, 30(4), hal. 555–562.
- Wang, Y., Liu, Y., Zhan, W., Zheng, K., Lian, M., Zhang, C., Ruan, X. dan Li, T., (2020) Long-term stabilization of Cd in agricultural soil using mercapto-functionalized nano-silica (MPTS/nano-silica): A three-year field study, *Ecotoxicology and Environmental Safety*, 197(April), hal. 110600.
- Weber, A.M., Mawodza, T., Sarkar, B. dan Menon, M., (2019a) Assessment of potentially toxic trace element contamination in urban allotment soils and their uptake by onions: A preliminary case study from, *Ecotoxicology and Environmental Safety*, 170, hal. 156–165.
- Weber, A.M., Mawodza, T., Sarkar, B. dan Menon, M., (2019b) Assessment of potentially toxic trace element contamination in urban allotment soils and their uptake by onions: A preliminary case study from, *Ecotoxicology and Environmental Safety*, 170(May 2018), hal. 156–165.
- Wiatrowska, K., Komisarek, J. dan Olejnik, J., (2021) Variations in organic carbon content and dehydrogenases activity in post-agriculture forest soils: A case study in south-western Pomerania, *Forests*, 12(4), hal. 1–20.
- Wiche, O. dan Pourret, O., (2023) The role of root carboxylate release on rare earth element (hyper)accumulation in plants – a biogeochemical perspective on rhizosphere chemistry, *Plant and Soil*, 492(1), hal. 79–90.
- Williams, J.A. dan Antoine, J., (2020a) Evaluation of the elemental pollution status of Jamaican surface sediments using enrichment factor, geoaccumulation index, ecological risk and potential ecological risk index, *Marine Pollution Bulletin*, 157(April), hal. 111288.
- Williams, J.A. dan Antoine, J., (2020b) Evaluation of the elemental pollution status of Jamaican surface sediments using enrichment factor, geoaccumulation index, ecological risk and potential ecological risk index, *Marine Pollution Bulletin*, 157(May), hal. 111288.
- Wongsasuluk, P., Chotpantarat, S., Siri Wong, W. dan Robson, M., (2018) Using hair and fingernails in binary logistic regression for bio-monitoring of heavy metals/metalloid in groundwater in intensively agricultural areas, Thailand, *Environmental Research*, 162(8), hal. 106–118.
- Wu, X., Cai, Q., Xu, Q., Zhou, Z. dan Shi, J., (2020) Wheat (*Triticum aestivum* L.) grains uptake of lead (Pb), transfer factors and prediction models for various types of soils from China, *Ecotoxicology and Environmental Safety*, 206(June),

hal. 1–10.

- Wuest, S., (2014) Seasonal Variation in Soil Organic Carbon, *Soil Science Society of America Journal*, 78(4), hal. 1442–1447.
- Wytenbach, A., Bajo, S., Furrer, V., Langenauer, M. dan Tobler, L., (1997) The accumulation of arsenic, bromine and iodine in needles of Norway Spruce (*Picea Abies* [L.] karst.) At sites with low pollution, *Water, Air, and Soil Pollution*, 94, hal. 417–430.
- Xiao, F., Cui, X., Zhao, Y., Fu, J., Yu, T., Bu, D. dan Zhang, Q., (2023) Concentration, spatial distribution, and source apportionment of heavy metals in agricultural soils from the Yarlung Zangbo River Basin, Tibetan Plateau, *Environmental Earth Sciences*, 82(23), hal. 1–11.
- Xiao, H., Shahab, A., Xi, B., Chang, Q., You, S., Li, J., Sun, X., Huang, H. dan Li, X., (2021) Heavy metal pollution, ecological risk, spatial distribution, and source identification in sediments of the Lijiang River, China, *Environmental Pollution*, 269, hal. 116189.
- Xiao, J., Wang, L., Deng, L. dan Jin, Z., (2019) Characteristics , sources , water quality and health risk assessment of trace elements in river water and well water in the Chinese Loess Plateau, *Science of the Total Environment*, 650, hal. 2004–2012.
- Xu, F., Rui, Y., Lin, Q. dan Zhang, F.-S., (2009) The content of nutrient elements of plant in KCl fertilizer, *Guang Pu Xue Yu Guang Pu Fen Xi*, 29(3), hal. 822–823.
- Xu, M., Wang, R., Sun, W., Wang, D. dan Wu, X., (2023) Source Identification and Ecological Risk of Potentially Harmful Trace Elements in Lacustrine Sediments from the Middle and Lower Reaches of Huaihe River, *Water (Switzerland)*, 15(3).
- Xu, S., Yu, C., Wang, Q., Liao, J., Liu, C., Huang, L., Liu, Q., Wen, Z. dan Feng, Y., (2023) Chromium Contamination and Health Risk Assessment of Soil and Agricultural Products in a Rural Area in Southern China, *Toxics*, 11(1), hal. 1–15.
- Xu, T., Nan, F., Jiang, X., Tang, Y., Zeng, Y., Zhang, W. dan Shi, B., (2020) Effect of soil pH on the transport, fractionation, and oxidation of chromium(III), *Ecotoxicology and Environmental Safety*, 195(December 2019), hal. 110459.
- Xu, X., Du, X., Wang, F., Sha, J., Chen, Q., Tian, G., Zhu, Z., Ge, S. dan Jiang, Y., (2020) Effects of Potassium Levels on Plant Growth, Accumulation and Distribution of Carbon, and Nitrate Metabolism in Apple Dwarf Rootstock Seedlings, *Frontiers in Plant Science*, 11(June), hal. 1–13.
- Xu, X., Wu, Y., Wu, X., Sun, Y., Huang, Z., Li, H., Wu, Z., Zhang, X., Qin, X., Zhang, Y., Deng, J. dan Huang, J., (2022) Effect of physicochemical properties of biochar from different feedstock on remediation of heavy metal contaminated soil in mining area, *Surfaces and Interfaces*, 32(May), hal. 102058.
- Yadav, P., Singh, B., Garg, V.K., Mor, S. dan Pulhani, V., (2017) Bioaccumulation

and health risks of heavy metals associated with consumption of rice grains from croplands in Northern India, *Human and Ecological Risk Assessment*, 23(1), hal. 14–27.

- Yan, X., An, J., Yin, Y., Gao, C., Wang, B. dan Wei, S., (2022) Heavy metals uptake and translocation of typical wetland plants and their ecological effects on the coastal soil of a contaminated bay in Northeast China, *Science of the Total Environment*, 803, hal. 149871.
- Yang, C., Zeng, Z., Wang, Y., He, G., Hu, Y., Gao, D., Dai, Y., Li, Q. dan Zhang, H., (2022) Ecological risk assessment and identification of the distinct microbial groups in heavy metal-polluted river sediments, *Environmental Geochemistry and Health*, 45(5), hal. 1311–1329.
- Yang, F., Zhang, H., Xie, S., Wei, C. dan Yang, X., (2023) Concentrations of heavy metals in water, sediments and aquatic organisms from a closed realgar mine, *Environmental Science and Pollution Research*, 30(2), hal. 4959–4971.
- Yang, H.J., Kang, T.W., Choi, B., Hwang, S.H., Shin, D. dan Park, W.P., (2022) Potential Sources of Heavy Metals in Sediments of an Urban–Agricultural Watershed and Relationship with Land Use Using a Statistical Approach, *Sustainability (Switzerland)*.
- Yang, J., Xie, Q., Wang, Y., Wang, J., Zhang, Y., Zhang, C. dan Wang, D., (2021) Exposure of the residents around the Three Gorges Reservoir, China to chromium, lead and arsenic and their health risk via food consumption, *Ecotoxicology and Environmental Safety*, 228, hal. 112997.
- Yang, J., Wang, J., Liao, X., Tao, H. dan Li, Y., (2022) Chain modeling for the biogeochemical nexus of cadmium in soil–rice–human health system, *Environment International*, 167(June).
- Yang, S., Huang, Q., Cheng, X., Qi, W., Zhang, X., Xiang, Y. dan Zhang, J., (2019) A review of human hair heavy metal concentration characteristics from mines in China, *IOP Conference Series: Earth and Environmental Science*, 362(1).
- Yassine, A., Taoufik, E.R., Rachid, H., Driss, D., Mohamed, N., Abdelmajid, H. dan Hanane, H., (2021) Assessing the contamination of trace toxic elements in the soils of sugar beet field (Beni-Mellal, Morocco), *Arabian Journal of Geosciences*, 14(9).
- Yoon, S., Choi, J., Moon, S.J. dan Choi, J.H., (2021) Determination and quantification of heavy metals in sediments through laser-induced breakdown spectroscopy and partial least squares regression, *Applied Sciences (Switzerland)*, 11(15).
- Yuan, P., Wu, X., Xia, Y., Peng, C., Tong, H., Liu, J., Jiang, L. dan Wang, X., (2020) Spatial and seasonal variations and risk assessment for heavy metals in surface sediments of the largest river-embedded reservoir in China, *Environmental Science and Pollution Research*, 27(28), hal. 35556–35566.
- Yuan, S., Zhang, W., Li, W., Li, Z., Wu, M. dan Shan, B., (2022) Accumulation and potential ecological risks of Heavy Metals in sediments from Rivers in the Beijing–Tianjin Area, *Bulletin of Environmental Contamination and*

Toxicology, 109(5), hal. 691–697.

- Yulyana, A., Hastuti, A.A.M.B., Rohman, A., Setiawan, B., Khasanah, F. dan Irnawati, (2023) Heavy metal levels in fish products in Indonesia: a survey, *Food Research*, 7(2), hal. 74–84.
- Zafeiriou, I., Gasparatos, D., Megremi, I., Ioannou, D., Massas, I. dan Economou-Eliopoulos, M., (2022) Assessment of Potentially Toxic Element Contamination in the Philippi Peatland, Eastern Macedonia, Greece, *Minerals*, 12(11).
- Zaman, F., Zhang, E., Ihtisham, M., Ilyas, M., Khattak, W.A., Guo, F., Wang, P., Wang, M., Wang, Y., Ni, D., Tang, C. dan Zhao, H., (2023) Metabolic profiling, pigment component responses to foliar application of Fe, Zn, Cu, and Mn for tea plants (*Camellia sinensis*), *Scientia Horticulturae*, 319(October 2022), hal. 112149.
- Zeman, T., Loh, E.W., Čierný, D. dan Šerý, O., (2018) Penetration, distribution and brain toxicity of titanium nanoparticles in rodents' body: A review, *IET Nanobiotechnology*, 12(6), hal. 695–700.
- Zemanová, V., Pavlíková, D., Hnilička, F. dan Pavlík, M., (2021) Arsenic toxicity-induced physiological and metabolic changes in the shoots of *pteris cretica* and *spinacia oleracea*, *Plants*, 10(10), hal. 1–19.
- Zeng, W., Wan, X., Wang, L., Lei, M., Chen, T. dan Gu, G., (2022) Apportionment and location of heavy metal(loid)s pollution sources for soil and dust using the combination of principal component analysis, Geodetector, and multiple linear regression of distance, *Journal of Hazardous Materials*, 438(May), hal. 129468.
- Zerrari, N., Rais, N. dan Ijjaali, M., (2023) Distribution, Source and Contamination Level of REEs and Heavy Metals in Agricultural Soils of Fez-Upstream, Morocco, *Soil and Sediment Contamination*, 00(00), hal. 1–29.
- Zhang, S., Zhang, Xu, Zhang, K., Yuan, B., Ren, D. dan Zhang, Xiaoqing, (2023) Comparison of Remediation Mechanism of Heavy Metal-Contaminated Soil by Combined Leaching and Two-Step Leaching, *Water, Air, and Soil Pollution*, 234(6), hal. 1–20.
- Zhang, Yanhao, Zhang, H., Zhang, Z., Liu, C., Sun, C., Zhang, W. dan Marhaba, T., (2018) PH Effect on Heavy Metal Release from a Polluted Sediment, *Journal of Chemistry*, 2018, hal. 1–8.
- Zhang, Yuting, Wu, J. dan Xu, B., (2018) Human health risk assessment of groundwater nitrogen pollution in Jinghui canal irrigation area of the loess region, northwest China, *Environmental Earth Sciences*, 77(7), hal. 1–12.
- Zhao, Bo, Wang, J., Sun, N. dan Liu, C., (2023) Low concentration of bromide ions improves sulfadiazine phytoremoval and attenuates its phytotoxicity, *Science of the Total Environment*, 893(June), hal. 164857.
- Zhao, Bing, Zhu, W., Hao, S., Hua, M., Liao, Q., Jing, Y., Liu, L. dan Gu, X., (2023) Prediction heavy metals accumulation risk in rice using machine learning and mapping pollution risk, *Journal of Hazardous Materials*, 448(October 2022),

hal. 130879.

- Zhao, X., Joo, J.C., Lee, J.K. dan Kim, J.Y., (2019) Mathematical estimation of heavy metal accumulations in *Helianthus annuus* L. with a sigmoid heavy metal uptake model, *Chemosphere*, 220, hal. 965–973.
- Zhao, Y., Hu, C., Wu, Z., Liu, X., Cai, M., Jia, W. dan Zhao, X., (2019) Selenium reduces cadmium accumulation in seed by increasing cadmium retention in root of oilseed rape (*Brassica napus* L.), *Environmental and Experimental Botany*, 158(1), hal. 161–170.
- Zhao, Z., Jiang, H., Kong, L., Shen, T., Zhang, X., Gu, S., Han, X. dan Li, Y., (2021) Assessment of potential ecological risk of heavy metals in surface soils of laizhou, Eastern China, *Water (Switzerland)*, 13(21), hal. 1–19.
- Zheng, J., Li, M., Tang, B., Luo, W., Ma, Y., Ren, M., Yu, Y., Luo, X. dan Mai, B., (2021) Levels, Spatial Distribution, and Impact Factors of Heavy Metals in the Hair of Metropolitan Residents in China and Human Health Implications, *Environmental Science and Technology*, 55(15), hal. 10578–10588.
- Zheng, Y., Shen, D., Wu, S., Han, Y., Li, S., Tang, F., Ni, Z., Mo, R. dan Liu, Y., (2018) Uptake effects of toxic heavy metals from growth soils into jujube and persimmon of China, *Environmental Science and Pollution Research*, 25(31), hal. 31593–31602.
- Zhou, S., Su, S., Meng, L., Liu, X., Zhang, H. dan Bi, X., (2021) Potentially toxic trace element pollution in long-term fertilized agricultural soils in China: A meta-analysis, *Science of the Total Environment*, 789, hal. 147967.
- Zhou, T., Wang, Z., Christie, P. dan Wu, L., (2021) Cadmium and Lead Pollution Characteristics of Soils, Vegetables and Human Hair Around an Open-cast Lead-zinc Mine, *Bulletin of Environmental Contamination and Toxicology*, hal. 1176–1183.
- Zhuang, P., Lu, H., Li, Z., Zou, B. dan McBride, M.B., (2014) Multiple exposure and effects assessment of heavy metals in the population near mining area in South China, *PLoS ONE*, 9(4), hal. 1–12.
- Zielińska-Dawidziak, M., Czapka-Matyasik, M., Wojciechowska, Z., Proch, J. dan Niedzielski, P., (2022) Concentration of selected elements in the hair of Madagascar girls in relation to nutritional status and place of residence, *British Journal of Nutrition*, 128(10), hal. 1927–1937.
- Zimik, H. V., Farooq, S.H. dan Prusty, P., (2021) Source characterization of trace elements and assessment of heavy metal contamination in the soil around Tarabalo geothermal field, Odisha, India, *Arabian Journal of Geosciences*, 14(11).
- Zinicovscaia, I., Sturza, R., Gurmeza, I., Vergel, K., Gundorina, S. dan Duca, G., (2019a) Metal bioaccumulation in the soil–leaf–fruit system determined by neutron activation analysis, *Journal of Food Measurement and Characterization*, 13(1), hal. 592–601.
- Zinicovscaia, I., Sturza, R., Gurmeza, I., Vergel, K., Gundorina, S. dan Duca, G., (2019b) Metal Bioaccumulation in The Soil–Leaf–Fruit System Determined by

Neutron Activation Analysis, *Journal of Food Measurement and Characterization*, 13(1), hal. 592–601.

Zinicovscaia, I., Sturza, R., Gurmeza, I., Vergel, K., Gundorina, S. dan Duca, G., (2019c) Metal bioaccumulation in the soil – leaf – fruit system determined by neutron activation analysis, *Journal of Food Measurement and Characterization*, 13(1), hal. 592–601.

Zinicovscaia, I., Sturza, R., Dului, O., Grozdov, D., Gundorina, S., Ghendov-Mosanu, A. dan Duca, G., (2020) Major and trace elements in moldavian orchard soil and fruits: Assessment of anthropogenic contamination, *International Journal of Environmental Research and Public Health*, 17(19), hal. 1–19.

Zinicovscaia, I., Vergel, K., Dului, O.G., Grozdov, D., Yushin, N. dan Chalgava, O., (2023) Assessment of Soil Pollution with Presumably Contaminating Elements in Moscow Recreational Areas Using Instrumental Neutron Activation Analysis, *Sustainability*, 15(7886).

Zogaj, M., (2016) *Heavy metals and plant uptake of metals in agricultural soils of Kosovo*. Universität Gießen.

Zote, L., Lalrammawia, K., Buragohain, A., Lalrinhlupui, Kakki, B., Lalmuanpui, R., Pachuau, Z., Vanlalhruaia, J., Muthukumaran, R.B., Kumar, N.S., Jahau, L., Sudarshan, M., Yushin, N., Nekhoroshkov, P., Grozdov, D., Sergeeva, A. dan Zinicovscaia, I., (2021) Macro-, micro-, and trace element distributions in areca nut, husk, and soil of northeast India, *Environmental Monitoring and Assessment*, 193(2).

Zu'Amah, H., Handayani, C.O. dan Dewi, T., (2022) Cadmium (Cd) Heavy Metal Content in Central Java Shallot Production Center, *IOP Conference Series: Earth and Environmental Science*, 1109(1), hal. 4–11.

Zunaidi, A.A., Lim, L.H. dan Metali, F., (2021) Assessments of heavy metals in commercially available fertilizers in Brunei Darussalam, *Agricultural Research*, 10(2), hal. 234–242.

Zuzolo, D., Cicchella, D., Lima, A., Guagliardi, I., Cerino, P., Pizzolante, A., Thiombane, M., De Vivo, B. dan Albanese, S., (2020) Potentially toxic elements in soils of Campania region (Southern Italy): Combining raw and compositional data, *Journal of Geochemical Exploration*, 213(October 2019), hal. 106524.