**REFERENCES**

[1] S. Nazari, O. Shahhoseini, A. Sohrabi-Kashani, S. Davari, H. Sahabi, A. Rezaeian, SO₂ pollution of heavy oil-fired steam power plants in Iran, Energy Policy 43 (2012) 456–465.

[2] C. Özkul, Heavy metal contamination in soils around the Tunçbilek Thermal Power Plant (Kütahya, Turkey), Environ. Monit. Assess. 188 (2016) 284.

[3] G. A. Idowu, E. A. Olonimoyo, A. M. Idowu, A. F. Aiyesanmi, Impact of gas and oil-fired power plants on proximal water and soil environments: case study of Egbin power plant, Ikorodu, Lagos State, Nigeria, SN Appl. Sci. 2 (2020) 1352.

[4] M. Jafari, A. Garakani, Techno-economic analysis of heavy fuel oil hydrodesulfurization process for application in power plants, Int. J. Oil Gas Sci. Technol. 10 (2021) 40–65.

[5] V. P. Beškoski, G. Gojgić-Cvijović, J. Milić, M. Ilić, S. Miletić, T. Šolević, M. M. Vrvić, Ex situ bioremediation of a soil contaminated by mazut – a field experiment, Chemosphere 83 (2011) 34–40.

[6] S. Kouravand, A. M. Kermani, Study of mechanical-biosystemic complications of mazut and new methods to reduce pollutants in Iranshahr power plant, Amirkabir J. Mech. Eng. 52 (2020) 419–436.

[7] M. S. Al-Masri, K. Haddad, A. W. Doubal, I. Awad, Y. Al-Khatib, Assessment of soil contamination by ²¹⁰Po and ²¹⁰Pb around heavy oil and natural gas fired power plants, J. Environ. Radioact. 132 (2014) 89–93.

[8] H.-J. Han, C.-W. Song, D. Yoon, J.-U. Lee, Soil pollution with heavy metals in the vicinity of coal-fired power plants in Taean and Seocheon, Chungnam Province, South Korea, Environ. Geochem. Health 47 (2024) 10.

[9] Ö. Ateş, T. Kadriye, Y. Gülser, K. Fatih, P. M. Özge, T. Serdar, V. A., R. Y., D. Özen, Ecological and contamination assessment of soil in the region of coal-fired thermal power plant, Int. J. Environ. Health Res. 33 (2023) 1558–1567.

[10] A. George, B. Shen, D. Kang, J. Yang, J. Luo, Emission control strategies of hazardous trace elements from coal-fired power plants in China, J. Environ. Sci. 93 (2020) 66–90.

[11] R. M. Hannun, A. H. Abdul Razzaq, Air pollution resulted from coal, oil and gas firing in thermal power plants and treatment: a review, IOP Conf. Ser.: Earth Environ. Sci. 1002 (2022) 012008.

[12] R. Fouladi Fard, K. Naddafi, M. Yunesian, R. Nabizadeh Nodehi, M. H. Dehghani, M. S. Hassanvand, The assessment of health impacts and external costs of natural gas-fired power plant of Qom, Environ. Sci. Pollut. Res. 23 (2016) 20922–20936.

[13] M. Sedghi, Evaluation of some heavy metals contaminated soils around the Shahid Salimi power plant, Neka, Mazandaran Province, Iran, Pol. J. Soil Sci. 52 (2019) 129.

[14] G. E. Rayment, D. J. Lyons, Soil chemical methods: Australasia, CSIRO Publishing, (2011).

[15] S. R. Olsen, Estimation of available phosphorus in soils by extraction with sodium bicarbonate, U.S. Dept. Agric. (1954).

[16] J. B. Jones, Soil analysis handbook of reference methods, Taylor & Francis, (1999).

[17] J. R. Dean, Bioavailability, bioaccessibility and mobility of environmental contaminants, Wiley, (2007).

[18] P. R. Kannel, S. Lee, S. R. Kanel, S. P. Khan, Chemometric application in classification and assessment of monitoring locations of an urban river system, Anal. Chim. Acta 582 (2007) 390–399.

[19] T. Næs, P.B. Brockhoff, O. Tomic, Statistics for Sensory and Consumer Science, Wiley, (2010).

[20] P. Rožič, T. Dolenec, B. Baždarić, V. Karamarko, G. Kniewald, M. Dolenec, Major, minor and trace element content derived from aquacultural activity of marine sediments (Central Adriatic, Croatia), Environ. Sci. Pollut. Res. Int. 19 (2012) 2708–2721.

[21] M. Nekoeinia, R. Mohajer, M. H. Salehi, O. Moradlou, Multivariate statistical approach to identify metal contamination sources in agricultural soils around Pb–Zn mining area, Isfahan province, Iran, Environ. Earth Sci. 75 (2016) 760.

[22] N.V Hidayati, P. Prudent, Asia, L. Vassalo, F. Torre, I. Widowati, A. Sabdono, A.D. Syakti, P. Doumenq, Assessment of the ecological and human health risks from metals in shrimp aquaculture environments in Central Java, Indonesia. Environ. Sci. Pollut. Res. 27 (2020) 41668–41687

[23] A. Esmaeili, F. Moore, B. Keshavarzi, N. Jaafarzadeh, M. Kermani, A geochemical survey of heavy metals in agricultural and background soils of the Isfahan industrial zone, Iran, Catena 121 (2014) 88–98.

[24] M. M.C. Ferreira, Multivariate QSAR, J. Braz. Chem. Soc. 13(2002) 742-753