studies for environmental risk assessment of mining waste facilities.

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REFERENCES

Concas, A., Ardau, C., Cristini, A., Zuddas, P., Cao. G., 2006. Mobility of heavy metals from tailings to stream waters in a mining activity contaminated site. *Chemosphere* 63, pp. 244–253.

Dogru, M., Yucel, M.A., 2017. Lithological Mapping Using LANDSAT 8 OLI Multispectral Data, *Afyon Kocatepe University Journal of Science and Engineering*. 17(1), pp. 172-184.

Gurdal, G., 2011. Abundances and modes of occurrence of trace elements in the Çan coals (Miocene), Çanakkale-Turkey. *International Journal of Coal Geology*, 87, pp. 157–173.

Gurdal, G., Bozcu, M., 2011. Petrographic characteristics and depositional environment of Miocene Can coals, Canakkale-Turkey. *International Journal of Coal Geology*, 85, pp. 143–160.

Finkelman, R.B., 1994. The use of modes of occurrence hazardous elements in coal: levels of confidence. *Fuel Processing Technology*, 39, pp. 21-34.

Ketris, M.P., Yudovich, Y.E., 2009. Estimations of Clarkes for carbonaceous biolithes: world average for trace element contents in black shales and coals. *International Journal of Coal Geology*, 78, pp. 135–148.

Martin, J.M., Meybeck, M., 1979. Elemental Mass-Balance of Material Carried by Major World Rivers. *Marine Chemistry*, 7(3), pp. 173-206.

Rashed, M.N., 2010. Monitoring of contaminated toxic and heavy metals, from mine tailings through age accumulation, in soil and some wild plants at Southeast Egypt. *Journal of Hazardous Materials*, 178, pp. 739–746.

Sanliyuksel Yucel, D., Baba, A., 2013. Geochemical characterization of acid mine lakes and their effect on the environment, NW of Turkey. *Archives of Environmental Contamination and Toxicology*, 64(3), pp. 357-376.

Sanliyuksel Yucel, D., Yucel, M.A., Baba, A., 2014. Change detection and visualization of acid mine lakes using time series satellite image data in geographic information systems (GIS): Can (Canakkale) County, NW Turkey. *Environmental Earth Sciences*, 72(11), pp. 4311-4323.

Sanliyuksel Yucel, D., Balci, N., Baba, A., 2016. Generation of Acid Mine Lakes Associated with Abandoned Coal Mines in Northwest Turkey. *Archives of Environmental Contamination and Toxicology*, 70(4), pp. 757-782.

Sanliyuksel Yucel, D., Baba, A., 2016. Prediction of acid mine drainage generation potential of various lithologies using static tests: Etili coal mine (NW Turkey) as a case study. *Environmental Monitoring and Assessment*, 188(8), pp. 473 (16).

Sanliyuksel, Yucel, D., Yucel, M.A., 2017. Determining hydrochemical characteristics of mine lakes from abandoned coal mines and 3D modelling of them using unmanned aerial vehicle. *Pamukkale University Journal of Engineering Sciences*, doi:10.5505/pajes.2016.37431.

Sobek, A.A., Schuller, W.A., Freeman, J.R., Smith, R.M., 1978. Field and laboratory methods applicable to overburdens and mine soils. US EPA-600/2-78-054, Cincinnati, OH, USA.

Yucel, M.A., Turan, R.Y., 2016. Areal Change Detection and 3D Modeling of Mine Lakes Using High-Resolution Unmanned Aerial Vehicle Images. *Arabian Journal for Science and Engineering*, 41(12), pp. 4867-4878.