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MONITORING OF HEAVY METALS DISTRIBUTION IN WASTE INCINERATION ASH – CASE STUDY

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Abstract

The purposes of incineration are basically to reduce the volume of the waste, to utilize the energy content and to destroy harmful compounds in the waste. In this work the environmental impact of incinerator plants solidified bottom ash is studied. The case study is based on hazardous waste incineration plant from Cluj-Napoca. The obtained ash, the source, the concentration and distribution of heavy metals during the ash management pathway is observed. The destination for landfill or cement industry, also other residual ash management possibilities are studied. The heavy metal content of slag varies by waste type, but is in general considerable higher than the concentration in soil. As for certain heavy metals in the waste, incineration can't limit the release of the metals to the environment. Modern waste treatment technologies are developed to ensure low release of heavy metals to the environment.

Key words: heavy metals, ICP MS, incineration, waste

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