Study of the composition and gas-phase release characteristics of salt material extracted from MSW ash particles using STA - DTU Orbit (28/12/2018)

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The ash material generated from the MSW incineration contains large amounts of alkali metals, heavy metals, chlorine and sulfur mainly deposited as inorganic salts and/or oxides on the surface of the Si-rich ash particles. In this work, the composition and gas-phase release characteristics of salt material extracted from MSW ash particles using a six-stage leaching process is studied using simultaneous thermal analysis (STA). The produced results provide useful information regarding the composition of the salt material and its melting behavior that is considered to play an important role to deposition and corrosion problems at MSW incinerators. The results may be used to model the deposition process and to the better understanding of the corrosion process during MSW incineration.