

Polychlorinated biphenyls (PCBs) and chlorobenzenes (CBzs) generated during municipal solid waste incineration (MSWI) pose a great threat to both human health and the environment. In the present study, an application of microwave-assisted extraction (MAE) is introduced to extract PCBs and CBzs from actual fly ash and sludge. The effect of moisture content on the extraction efficiency of MAE has been investigated and compared with that of conventional soxhlet extraction (SE). Lower moisture content leads to higher extraction efficiency. When adding Na_2SO_4 to absorb the residual moisture from sludge, the recorded concentration of PCBs and CBzs reaches its maximum value. Compared to SE, MAE shows unique advantages: high extraction efficiency for chlorinated homologues, shorter extraction time and less solvent volume spent.

