Particulate Metal Emissions from Wood Incineration Measured Online Using RDD-SMPS-ICPMS

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**Background**

Influence of material coatings, impregnations, or additives, on particulate emissions during thermal end of life treatment

RDD-SMPS-ICPMS: Element aerosol analysis

Pilot experiment: Non-treated beech sawdust pellet as reference fuel

**Concept**

Laboratory furnace: Thermogravimetric Analyzer (TGA)

Gas quench interface: continuous gas flow

ICPMS element characterization

(A) overall aerosol

(B) filtered aerosol carrier gas

(C) SMPS classified particles

**Measuring Arrangement**

TGA temperature range: ambient - 950 °C

Reproducible temperature curves

Aerosol sample rate defined by carrier and quench gas mass flow controllers

**Preliminary Data**

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