

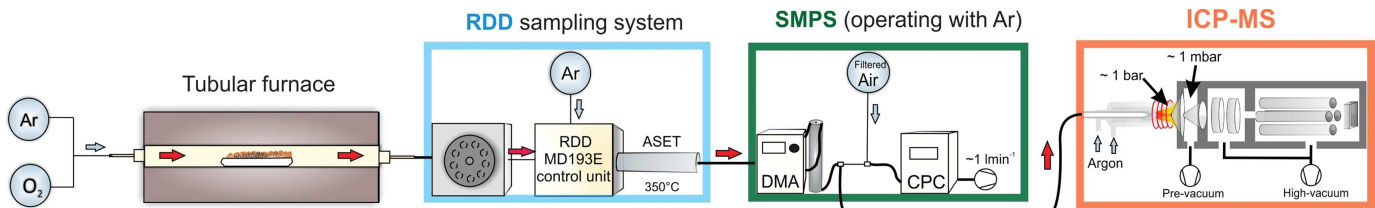
On-line size-resolved elemental analysis of metallic nano-objects during wood combustion processes: case of ZnO

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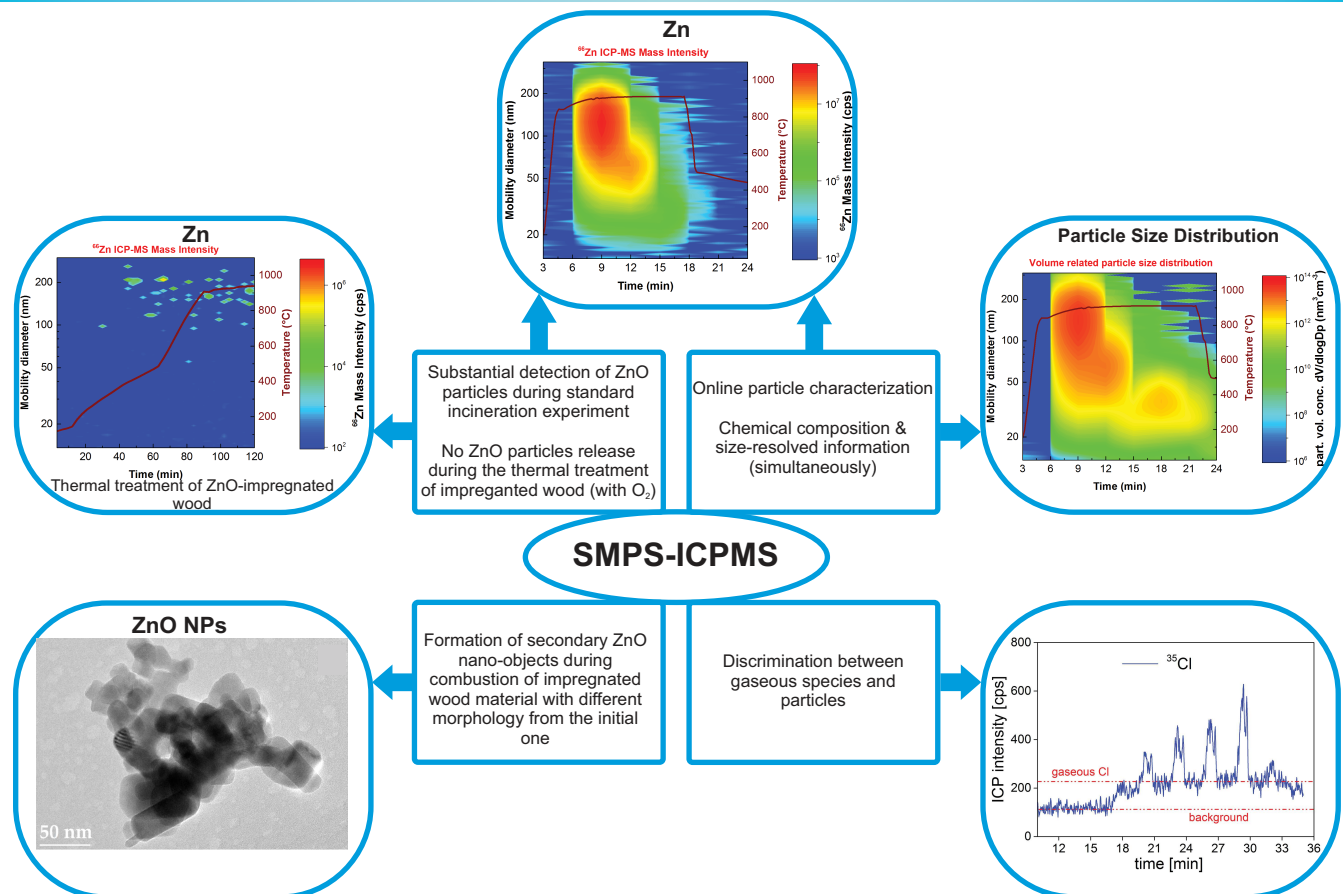
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On-line measurement setup for aerosol and gas



Scanning Mobility Particle Sizer - Inductively Coupled Plasma Mass Spectrometer

Case study: ZnO nanoparticles during waste wood combustion



Conclusion

Due to the reduction and re-oxidation of metallic compounds during the combustion of waste wood, new nano-objects with different morphology from the initial one can be formed.

To control their fate and their potential release in the environment the secondarily generated nano-objects should be taken into account in the development of the filtering and gas-cleaning systems.

SMPS-ICPMS capabilities to characterize gases and metallic particles in bio-energy processes and to investigate catalyst & cleaning devices performance.

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