

## **In situ measurement of nanoparticles**

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May 8, 8:35 - 10:15, Gold Hall

The quest for the limits of in-situ measurements of nanoparticles in environmental and biological samples and implications for modelling Measurement and characterization of engineered nanomaterials (ENM) has revolutionized over the past decade. While initial efforts have mainly focused on characterizing size in stock suspensions of predominantly ENM, we now have tools at our disposal to also characterize other relevant measurands of ENMs such as shape and number concentration, often at environmentally relevant concentrations and in difficult biological and environmental matrices where that was previously impossible. Development of single particle ICP-MS has been instrumental in this evolution, bringing a technique to maturity that is now routinely capable of measuring size and number concentration of inorganic ENMs in a wide range of environmental samples. Having these opportunities, however, it is still unclear how they can validate models being developed for environmental fate of ENMs. Bridging the gap between measurement and modelling is still an active area of research, where both model predictions need to be in line with what can be measured and measurement techniques become more in line with required model measurands. This session is seeking abstracts that are specifically facing these challenges. Priority will be given to new or refinement of existing techniques that widen the realm of possibilities to analyse ENMs in-situ in difficult biological and/or environmental matrices and attempts to bridge the gap between measurement and modelling.