

On-line characterization of nanoparticle material properties using aerosol techniques

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Nanoparticles for functional nanomaterials can be produced by means of aerosol processes with high purity and at high throughput. However, since particle properties may become size-dependent in this size range on-line techniques are highly desired for process control. In the presentation, a short overview on available measuring methods and their limitations will be given first and then low pressure impaction and aerosol photoemission will be treated in more detail. In particular, the possibilities of these two techniques to extract material and surface information from on-line measurements will be outlined on a few examples of metallic and metal oxide nanoparticles, respectively.

