Topic: Nanoparticle Synthesis

Micro-segmented flow and Taylor flow are used in micro reacton technology for heterogeneous reactions. Beside this application, the segmented-flow principle allows the realization of an ideal plug flow for different kinds of micro-continuous flow reactions. So, a very narrow residence time distribution can be achieved.

The handling of colloidal solutions and the formation and manipulation of nanoparticles and microparticles is of interest for the synthesis of high quality nanomaterials and for the preparation of new nanoparticle types.

Here, some examples of micro and nanoparticles generated by synthesis in micro fluid segments, are given:

- salt-like dielectric nanoparticles,
- binary metal nanoparticles like AuAg and AuCu nanoparticles,
- ZnO micro particles,
- polymer nanoparticles

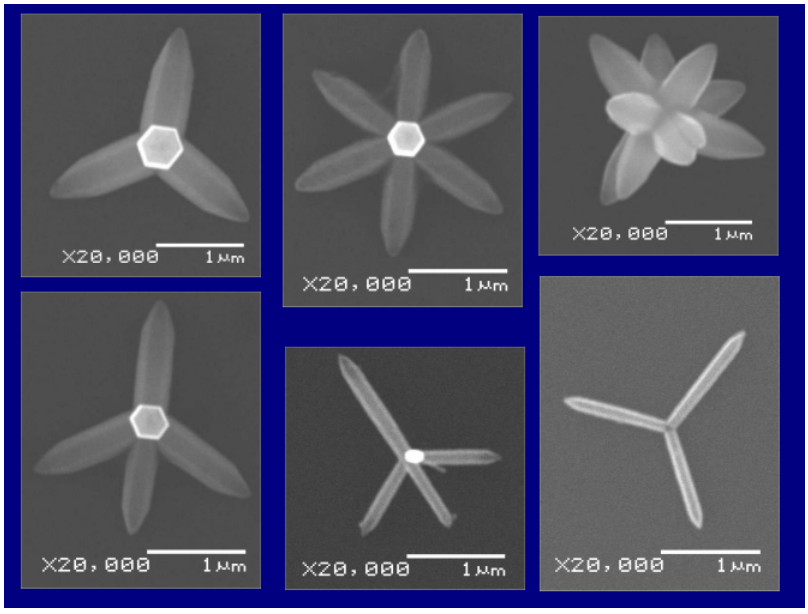

Figure: ZnO micro particles synthesized at several reaction conditions

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