

Inorganic nanotubes

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Inorganic nanotubes is an ever-increasing class of nanomaterials, first observed in WS_2 ¹ (Fig. 1) and later expanded to numerous compounds with layered and non-layered compounds alike². Their growth mechanism was studied in great detail using *Cs* corrected TEM³. Recently, a reproducible synthesis of a few hundred g/batch was developed⁴. This development may lead into a commercially viable manufacturing technology for such nanotubes in the foreseeable future. Furthermore, using WS_2 nanotubes as templates various other core-shell nanotubes, like $PbI_2@WS_2$ nanotubes were synthesized⁵. Their mechanical properties have been studied in great detail⁶. For example WS_2 nanotubes were found to be very elastic while being also very strong. Numerous applications have been proposed for such nanomaterials, which will also briefly presented.

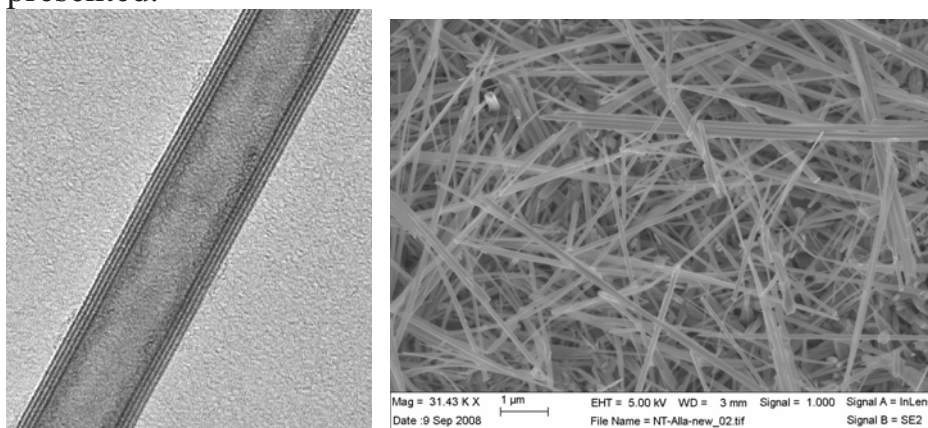


Fig. 1. TEM of a WS_2 nanotube

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