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Inorganic nanotubes and fullerene-like nanoparticles: Progress report**Reshef Tenne**

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This presentation is aimed at demonstrating the progress with the high-temperature synthesis and characterization of new inorganic nanotubes (INT) and fullerene-like (IF) nanoparticles (NP) from 2-D layered compounds. A few classes of new IF/INT synthesized in our laboratory will be discussed: metal nanoparticles sheathed with a monolayer of MoS₂(WS₂), i.e. Au@ML-MoS₂; nanotubes from misfit layered compounds- such as SrCoO₂-CoO₂; and Nb(Re) doped IF-MoS₂ nanoparticles. Some intriguing mechanical (capillary suction of water), optical (plasmonic) and transport (superconductivity) properties of IF/INT will be discussed. Several new applications will be described as well.

Biography

Reshef Tenne has completed his PhD from the Hebrew University in Jerusalem (1976) and is currently an Emeritus Professor at the Weizmann Institute. Recently, he was awarded with Gold Medal from the Israel Chemical Society (2015) and the Rothschild Prize in Physical and Chemical Sciences (2016).

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