

CANdot YbF₃

CANdot YbF₃: nanoparticles with high x-ray contrast. Due to our unique expertise in the production of homogeneously dispersed inorganic nanoparticles, our CANdot YbF₃ particles exhibit a spherical to rod-like shape with a high stability in solution. Currently, they are available in a hydrophilic and hydrophobic version

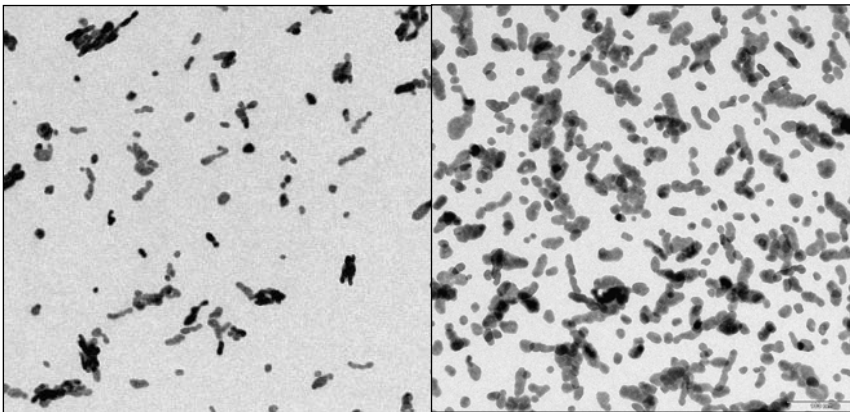


Fig. 1: TEM images of ytterbium fluoride hydrophobic (left) and hydrophilic (right) nanoparticles

For technical applications, the CANdot YbF₃ particles are available as a solution in toluene or ethanol with a concentration of 10 m%. They can be bought as dry powder, too.

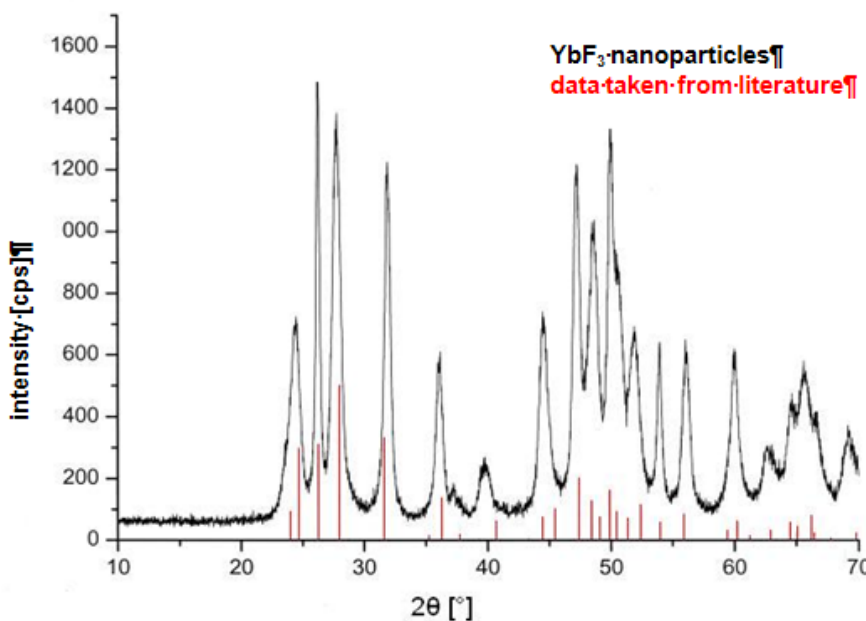


Fig. 2: XRD pattern of ytterbium fluoride bulk material (red) and nanoparticles (black)

Features	
Material	Ytterbium fluoride
Molecular formula	YbF ₃
Appearance	white powder
Storage conditions	at room temperature under nitrogen atmosphere
Modification	hydrophobic hydrophil

Advantages	
Small particle size	< 100 nm
Tunable Dispersibility	Hydrophobic: Chloroform, Toluene Hydrophil: Acetone, Ethanol
Multiple Applications	filling material for dental applications, x-ray contrast agent/ radiopaque

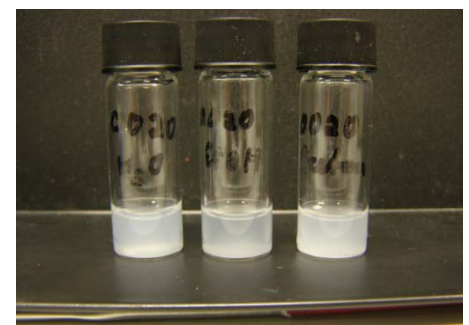


Fig. 3: Dispersion of YbF₃ in water, ethanol and acetone

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