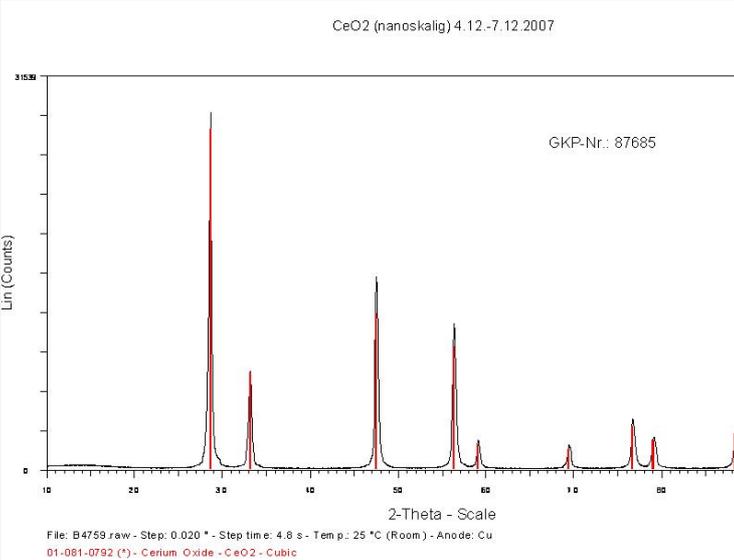
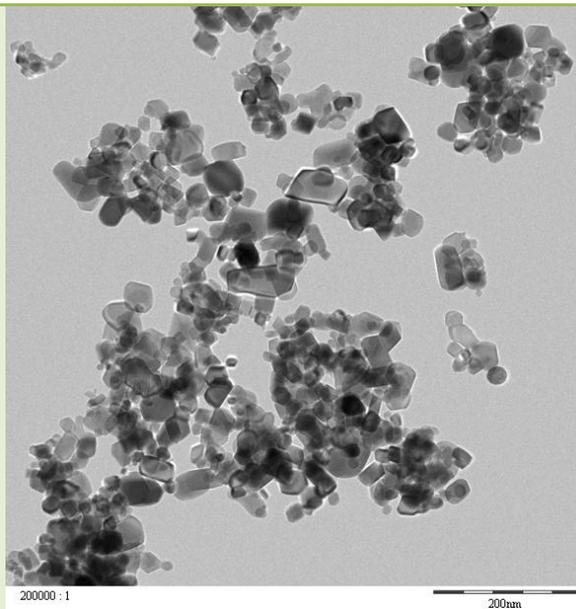


Material

Cerium oxide (CeO₂)

Charge description/ NanoCare Product number	CH-000380 3.5
Provider	BASF SE
Available form	Powder
Primary particle size [d₅₀ in nm]	70 nm
Particle size distribution	10 - 200 nm, see TEM; D ₅₀ of primary particles according to TEM and XRD at 40 nm
pH	n/a (Powder)
BET Surface area	33 m ² /g
Particle morphology	Irregular spherical
Crystal phase and crystallinity	<p>Cerium oxide cubic</p> 
Stabilisation	no
Solubility in water	In H ₂ O and DMEM/FCS below detection limit of 1 ppm Protocol: initial concentration 10 mg/ml, 24h agitation at 900 rpm; centrifugation and analysis of supernatant
Purity/contamination	Purity 99% see XRD above

REM/TEM



Zeta potential

XPS-results:
impurities C and Cl on the surface

Surface area chemistry

O 53 %
Ce 26 %
C 20 %
Cl 0.6 %