



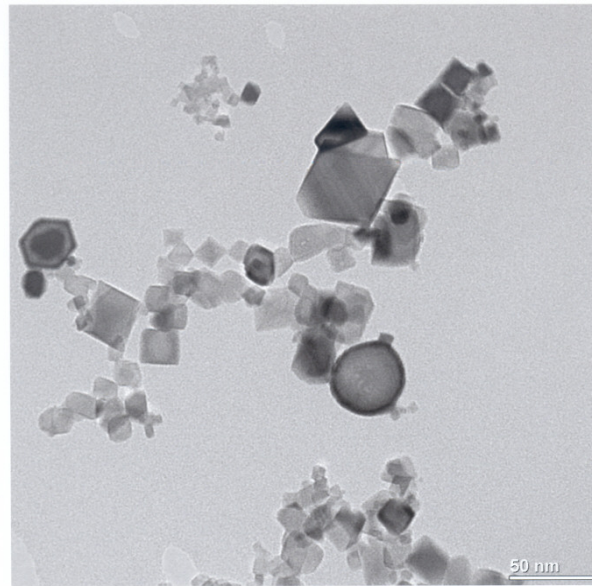
## Material

Cerium oxide (CeO<sub>2</sub>) modification B

<b>Charge description/ NanoCare Product number</b>	CH-000441 3.2																
<b>Provider</b>	Evonik Degussa																
<b>Available form</b>	Powder																
<b>Primary particle size [d<sub>50</sub> in nm]</b>	20 nm																
<b>Particle size distribution</b>	<p><b>Results</b></p> <table border="1"> <thead> <tr> <th></th> <th>Diam. (nm)</th> <th>% Intensity</th> <th>Width (nm)</th> </tr> </thead> <tbody> <tr> <td><b>Z-Average (d.nm):</b> 496,0</td> <td><b>Peak 1:</b> 364,1</td> <td>93,8</td> <td>195,0</td> </tr> <tr> <td><b>Pdl:</b> 0,548</td> <td><b>Peak 2:</b> 31,79</td> <td>3,1</td> <td>7,707</td> </tr> <tr> <td><b>Intercept:</b> 0,733</td> <td><b>Peak 3:</b> 5560</td> <td>3,1</td> <td>6,104e-5</td> </tr> </tbody> </table> <p><b>Result quality</b> Refer to quality report</p>		Diam. (nm)	% Intensity	Width (nm)	<b>Z-Average (d.nm):</b> 496,0	<b>Peak 1:</b> 364,1	93,8	195,0	<b>Pdl:</b> 0,548	<b>Peak 2:</b> 31,79	3,1	7,707	<b>Intercept:</b> 0,733	<b>Peak 3:</b> 5560	3,1	6,104e-5
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<b>pH</b>	5.4																
<b>BET Surface area</b>	44 m <sup>2</sup> /g																
<b>Particle morphology</b>	Aggregate																
<b>Crystal phase and crystallinity</b>	Crystalline (100 % fcc)																
<b>Stabilisation</b>	HNO <sub>3</sub>																
<b>Solubility in water</b>	-																
<b>Purity/contamination</b>	> 99.97 %																

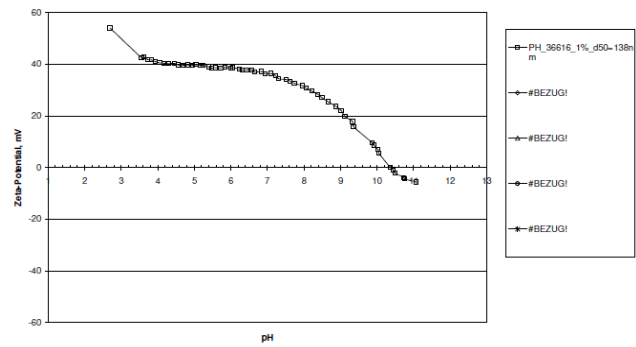


REM/TEM



Zeta-Potential 1, Titration mit 5m NaOH auf pH 11

Zeta potential



Surface area chemistry

O	56.1 %
Ce	21.8 %
C	22.1 %