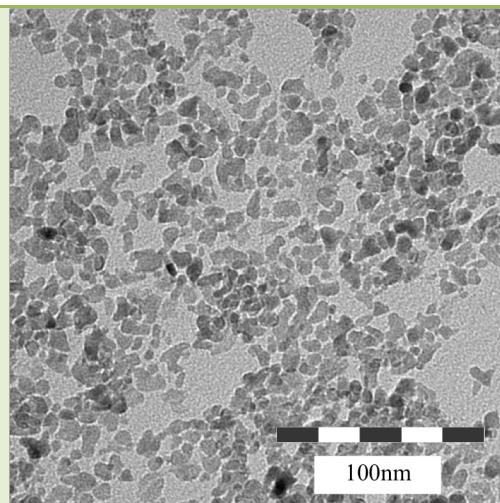
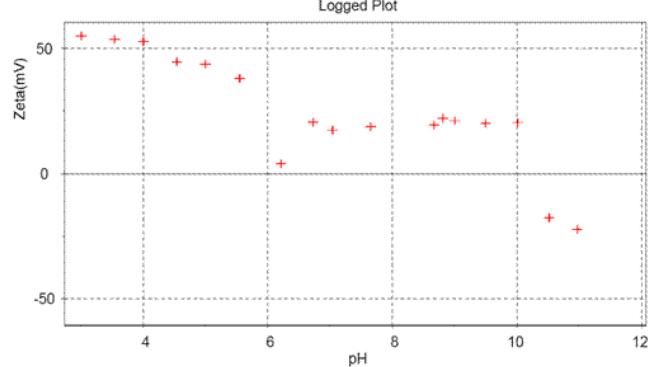




Material

Zirconium dioxide (ZrO_2)

Charge description/ NanoCare Product number	CH-000217/421 8.1
Provider	ItN Nanovation AG
Available form	Suspension in water
Primary particle size [d_{50} in nm]	36.8 nm
Particle size distribution	<p>The graph displays the volume distribution of particles. The x-axis represents particle size in nm on a logarithmic scale, ranging from 1 to 1000. The y-axis represents volume distribution in percent, ranging from 0 to 25. A single bell-shaped curve is shown, with three vertical lines indicating specific size points: $d_{10} = 12 \text{ nm}$, $d_{50} = 36.8 \text{ nm}$, and $d_{90} = 59 \text{ nm}$.</p>
pH	4.06 (in water)
BET Surface area	122 m^2/g
Particle morphology	Irregular spherical
Crystal phase and crystallinity	Mixed phase monocline (75%)/ tetragonal (25%)
Stabilisation	Organic Polyoxa-acid
Solubility in water	190 ppm (according to SOP)
Purity/contamination	O 60 % Zr 37 % Cl 3 %

**REM/TEM****Zeta potential
(in water)****Surface area chemistry**

O	55 %
Zr	21 %
C	24 %
Cl	0.6 %