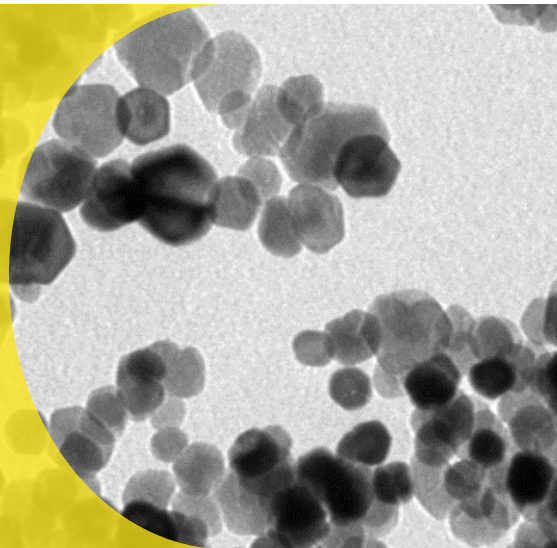




CeO_2

Cerium dioxide datasheet



Our offer

We offer ceria nanoparticles dispersed in water and alcohols. Dispersions in other media are under development. Our nanoparticles can be used as abrasive materials in Chemical Mechanical Polishing slurries. Their high crystallinity, low organic content and narrow size distribution are key in this application.

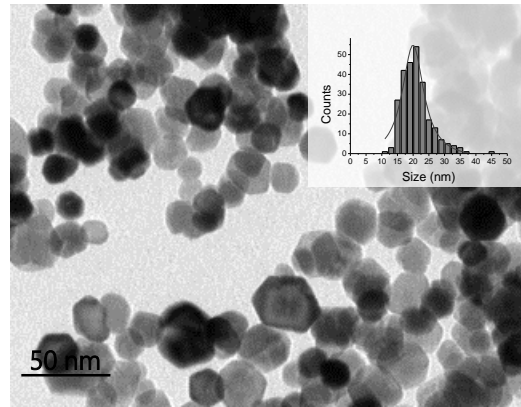
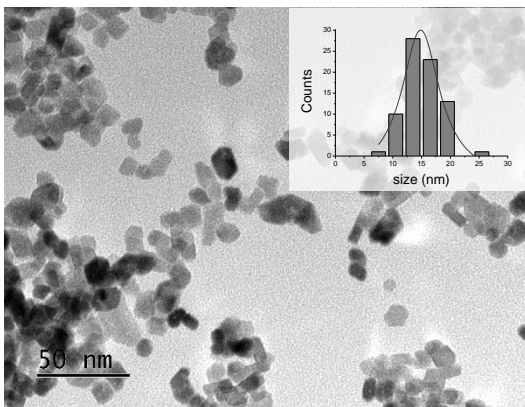
They can also be employed as nanofillers in composite materials, for example in high refractive index composites and UV-protection coatings.

We provide as well doped ceria nanoparticles, e.g., with gadolinium oxide dopant, that can be used to produce Solid Oxide Cells.

Main properties

Chemical formula	CeO ₂ or Ce _{1-x} Gd _x O ₂ or Ce _{1-x} Y _x O ₂ (x up to 0.1)
Crystal structure	Cubic
Morphology	Polyhedral
Average particle size	7 - 14 - 18 nm for CeO ₂ , size depends on doping for other grades
Density (theoretical)	7.22 g/cm ³ for CeO ₂
Refractive index (theoretical)	~2.35
Dispersion medium	Water, alcohols, dispersion in other media is under development
Type of functionalization	Depends on dispersion medium and application requirements

Examples of CeO₂ nanoparticle size and morphology



Samples and Safety Data Sheets are available.