

Technical Data Sheet

Cerium(IV)oxide

Revision Date: 03/03/2009

Date Issued: 03/01/2007

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY / UNDERTAKING

Product name	Cerium(IV)oxide, Nanopowder
Product code	NO-0017-HP
Supplier	IoLiTec Ionic Liquids Technologies GmbH Salzstrasse 184 D-74076 Heilbronn Germany
Telephone	+49 (0)7131 - 898390
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Emergency telephone	+49 (0)179 - 5322578

2 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient name	Cerium(IV)oxide
CAS No.	1306-38-3
Empirical Formula	CeO ₂
Molecular weight	172.12 amu
Purity	99.9+%
Average Particle Size	50-80 nm
Specific Surface Area	11-17 m ² /g
Colour	-
Morphology	-
Bulk Density	0.64 g/cm ³
True Density	7.65 g/cm ³
Melting point	2600 °C

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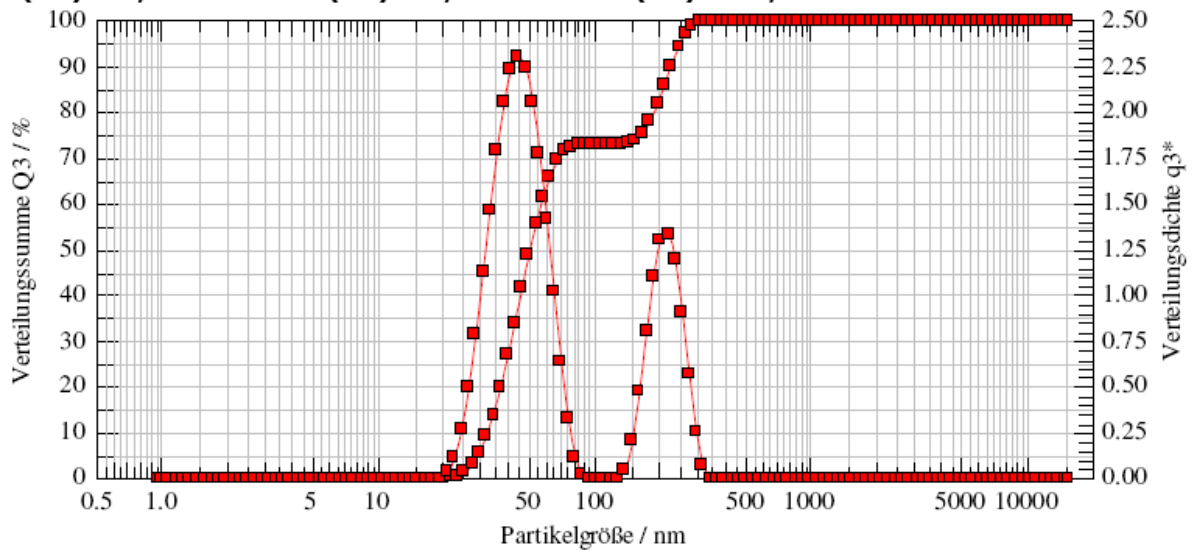
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Boiling point -

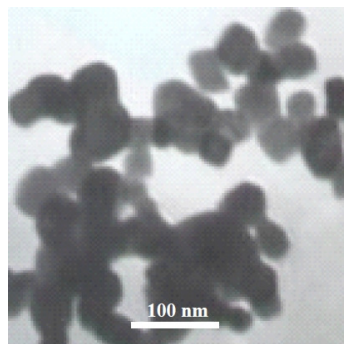
3 PCCS

Verteilungskurve

xi(10): 31,79 nm xi(50): 50,06 nm xi(90): 223,61 nm



4 TRANSMISSION ELECTRON MICROSCOPY



5 X-RAY DIFFRACTION PATTERN

N/A

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6 APPLICATIONS

- Buffer layer for super conductors
- Oxidation resistant coatings
- Heat resistant alloy coatings
- Coatings for infrared filters
- Coloring agents for plastics
- Polishing media for electronic devices, glasses and bearing balls
- Oxygen pumps
- Oxygen sensors
- Catalysts and catalyst support
- Infrared absorbents
- Electrolyte and electrode material for solid oxide fuel cells
- Sintering additives
- Ultraviolet absorbent (absorption at ~400 nm)

7 OTHER INFORMATION

DISCLAIMER

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