

Technical Data Sheet

Cerium oxide Sputtering Target

Product ID: 580800ST001 - 580800ST005

Formular: CeO₂

Molecular weight: 172.11 g/mol

CAS No.: 1306-38-3

EINECS No.: 215-150-4

Color: Light yellow

Description: Our cerium oxide sputtering targets have a purity of ≥99.99% REO and can be customized to higher purities and different sizes upon request, offering high density, stable film deposition performance, and excellent optical, electrical, and catalytic properties.

Application: Optical coatings, electronic devices, catalytic layers, and advanced functional materials.

**Product
Image:**



1. Sizes

Product ID	Formular	Size
580800ST001	CeO ₂ (99.99% CeO ₂ /TREO)	Ø 50.8 mm x 6.35 mm
580800ST002	CeO ₂ (99.99% CeO ₂ /TREO)	Ø 76.2 mm x 3.175 mm
580800ST003	CeO ₂ (99.99% CeO ₂ /TREO)	Ø 76.2 mm x 6.35 mm
580800ST004	CeO ₂ (99.999% CeO ₂ /TREO)	Ø 101.6 mm x 3.175 mm
580800ST005	CeO ₂ (99.999% CeO ₂ /TREO)	Ø 101.6 mm x 6.35 mm
580800ST4NDZ	CeO ₂ (99.99% CeO ₂ /TREO)	Customized
580800ST5NDZ	CeO ₂ (99.999% CeO ₂ /TREO)	Customized

2. Chemical compositions

		Chemical Compositions (ppm)				
Main Content		TREO ≥99%, CeO ₂ /TREO ≥99.99%				
RE Impurities (ppm)						
La ₂ O ₃	Pr ₆ O ₁₁	Nd ₂ O ₃	Sm ₂ O ₃	Eu ₂ O ₃	Gd ₂ O ₃	Y ₂ O ₃
≤ 10	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5
Non-RE Impurities (ppm)						
CaO	Fe ₂ O ₃	SiO ₂				
≤ 50	≤ 100	≤ 50				
Main Content		TREO ≥99%, CeO ₂ /TREO ≥99.999%				
RE Impurities (ppm)						
La ₂ O ₃	Pr ₆ O ₁₁	Nd ₂ O ₃	Sm ₂ O ₃	Eu ₂ O ₃	Gd ₂ O ₃	Y ₂ O ₃
≤ 2	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1
Non-RE Impurities (ppm)						
CaO	Fe ₂ O ₃	SiO ₂				
≤ 20	≤ 50	≤ 20				

Note: The purity values shown are calculated by subtracting the sum of selected measured elemental impurities from 100%. These values do not represent the result of a full elemental analysis.

3. Packaging

Carton/wooden box outer bag.
Double vacuum inner bag.

4. Period of Validity

It is recommended to use this product within 12 months. If it is overdue, the product quality status should be re-evaluated.

5. Handling and Storage

When using, wear a dust mask, ensure proper ventilation, avoid inhalation or skin/eye contact.

Stored in a cool, dry and well-ventilated area, and follow proper procedures for disposal and cleaning to maintain material integrity and safety.

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