



Technical Data Sheet

ACS Material Lanthanum Oxide (La₂O₃)

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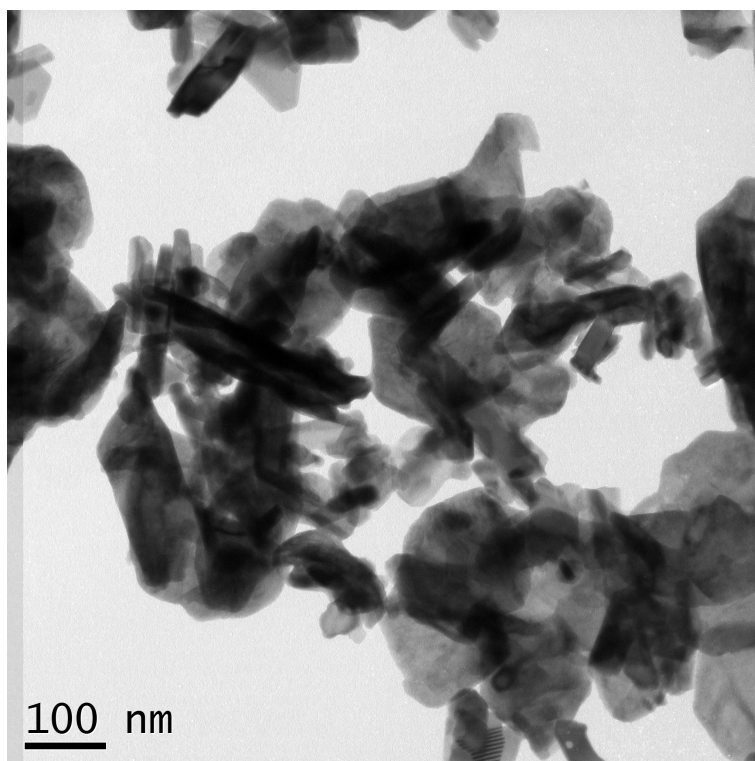
Revision: 092817

1. Preparation Method

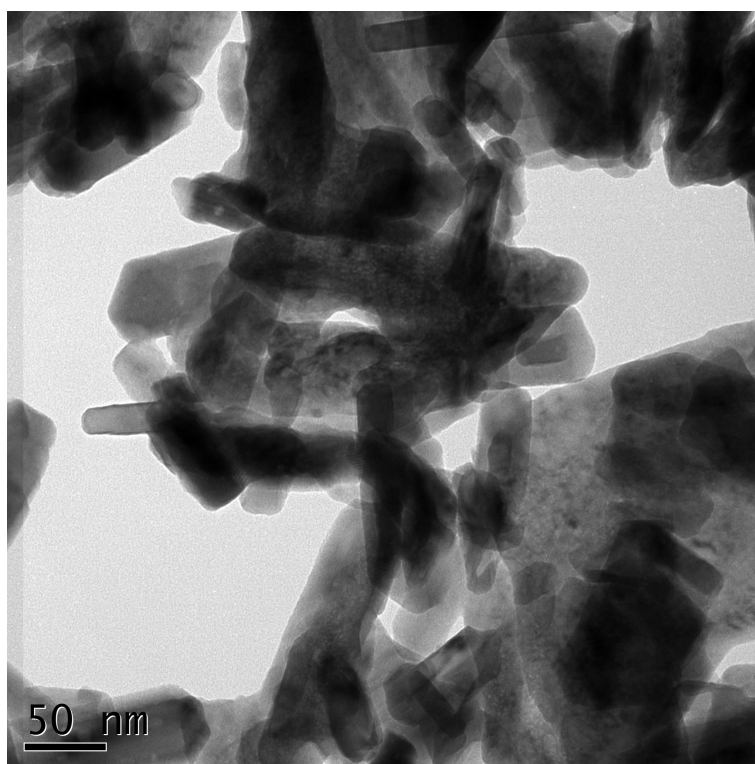
NA

2. Characterizations

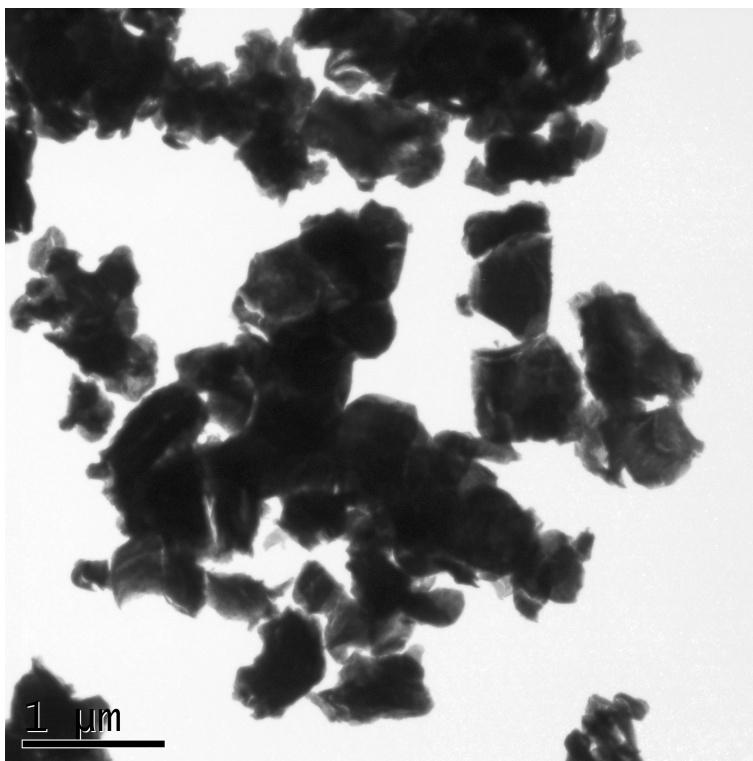
Type:	Type A	Type B
Color:	White powder	White powder
Purity:	>99.99%	>99.99%
Particle Size:	30-50 nm	200-500 nm
BET Surface Area:	~100 m ² /g	~ 30 m ² /g
Relative Density:	6.51 g/cm ³	6.51 g/cm ³
Concentration (ppm):	CeO ₂ : ≤20 Pr ₆ O ₁₁ : ≤20 Nd ₂ O ₃ : ≤20 Sm ₂ O ₃ : ≤20 Y ₂ O ₃ : ≤20	CeO ₂ : ≤20 Pr ₆ O ₁₁ : ≤20 Nd ₂ O ₃ : ≤20 Sm ₂ O ₃ : ≤20 Y ₂ O ₃ : ≤20



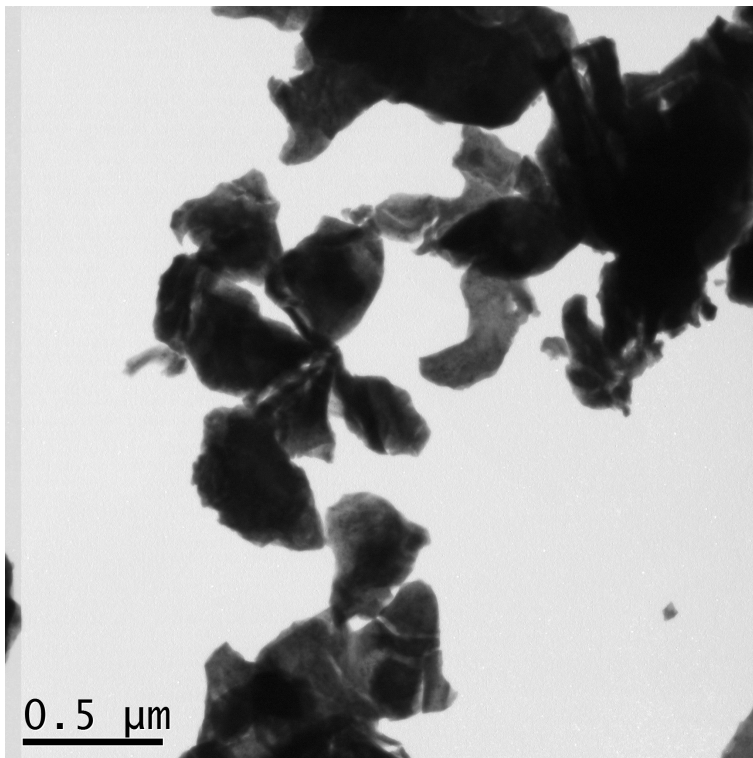
TEM Image of ACS Material La₂O₃ (Type A: 30-50 nm)



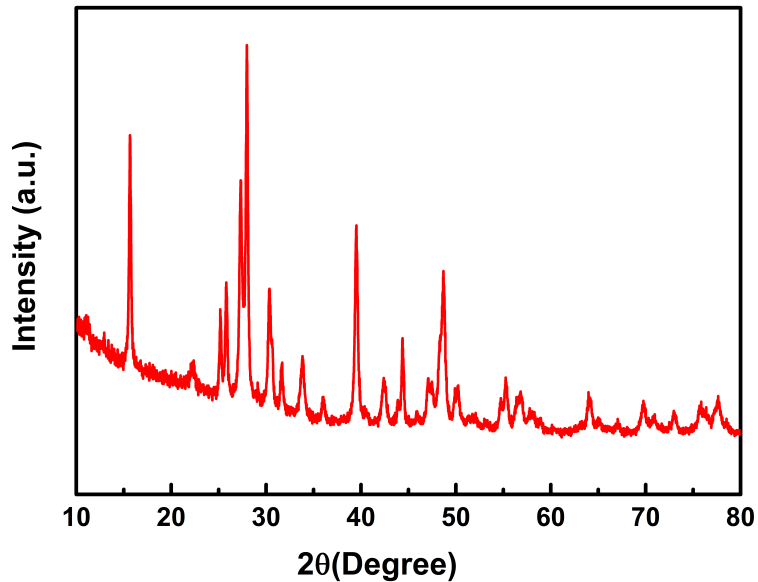
TEM Image of ACS Material La₂O₃ (Type A: 30-50 nm)



TEM Image of ACS Material La₂O₃ (Type B: 200-500 nm)



TEM Image of ACS Material La₂O₃ (Type B: 200-500 nm)



XRD Analysis of ACS Material Lanthanum Oxide (La_2O_3)

3. Application Fields

- In piezoelectric materials to increase product piezoelectric coefficients and improve product energy conversion efficiency
- For the preparation of organic chemical products, catalysts, and automotive exhaust catalyst
- For the manufacture of high-refraction optical fibers, precision optical glasses, and other alloy materials
- To improve the burning rate of propellants
- In luminescent materials (blue powder), hydrogen storage materials, and laser materials

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