

ERBIUM OXIDE NANOPOWDER



Purity
99.9%



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NS6130-10-1097

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ERBIUM OXIDE NANOPOWDER

Erbium (III) oxide is also known as Erbia and it is synthesized from the lanthanide metal erbium. It is important rare earth oxide and it has a pink color with a cubic crystal structure but at higher temperatures it also shows hexagonal form. The most interesting property of erbium oxides is their ability to upconvert photons. It possesses distinct number of properties such as photoluminescence, electrical and optical properties.

Erbium oxide nanoparticles can be synthesized in the presence of multiwall carbon nanotubes and by applying ultrasound. The applications of Er₂O₃ are differed due to their electrical, optical and photoluminescence properties. To enhance the properties of nanoscale materials, mainly the materials are doped with Er⁺³ are of much interesting owing they have special particle-size-dependent optical and electrical properties. It is an indispensable material for oxidation-resistant. It is utilized for thermal barrier coatings.

QuickFACTS

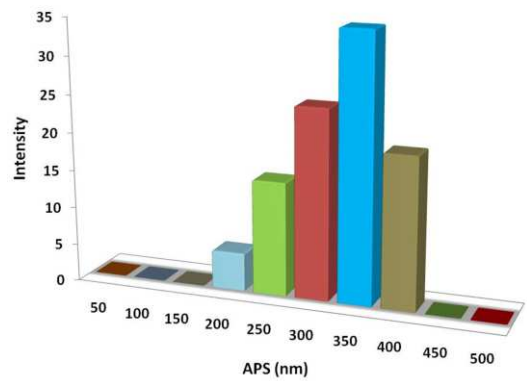
Product	:	Erbium Oxide Nanopowder
Stock No	:	NS6130-10-1097
CAS	:	12061-16-4
Color	:	Pink
Form	:	Powder
Symbol	:	Er ₂ O ₃
Group	:	Erbium 3/Oxygen 16

Electronic Configuration:

Erbium [Xe] 4f¹² 6s²

Oxygen [He] 2s² 2p⁴

SSA : >15m²/g



ADDITIONAL POWDER CHARACTERISTICS

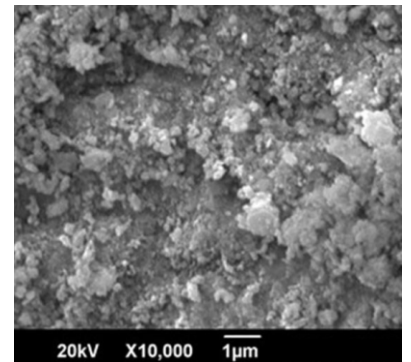
Stock No.	Purity	APS
NS6130-10-1097	99.9%	<300nm

TECHNICAL SPECIFICATION

Molecular Formula	Molecular Weight	Density	Melting Point
Er ₂ O ₃	382.56 g/mol	8.64 g/cm ³	2344 °C

CHEMICAL COMPOSITION

Product	Weight Percent (nominal)	
	Er ₂ O ₃	Other Metal
Erbium Oxide Nanopowder	99.9%	1000ppm



APPLICATIONS

- > Utilised as display monitors
- > Used for bioimaging
- > High-temperature corrosion-resistant coatings
- > Dopants for optical fiber and laser materials
- > Tuned insulator for Josephson junctions
- > Capacitors, and metal-oxide-semiconductor transistors



ISO 9001:2015
CERTIFIED COMPANY

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