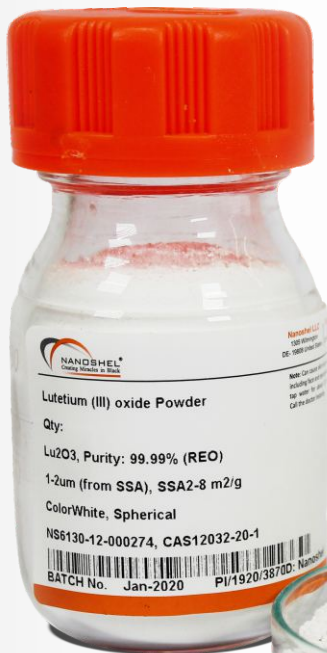


# Lutetium III

## Oxide Powder



APS  
1-2 $\mu$ m

NS6130-12-000274



Follow us:



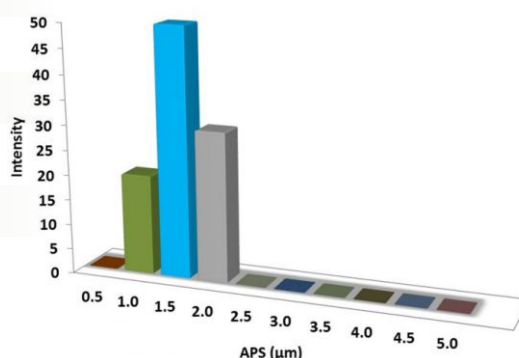
| [www.nanoshel.com](http://www.nanoshel.com) | [sales@nanoshel.com](mailto:sales@nanoshel.com)

# Lutetium III Oxide Powder

Lutetium (III) oxide is an important raw material for laser crystals. It also has specialized uses in ceramics, glass, phosphors, and lasers. Lutetium (III) oxide is used as a catalyst in cracking, alkylation, hydrogenation, and polymerization. Lutetium oxide has a cubic crystal structure. 2487°C is the melting point, which is quite high enough, of lutetium oxide compound. Due to lutetium oxide's air sensitivity, lutetium oxide is compatible with strong oxidizing agents. Therefore, there is a need for lutetium oxide to be avoided from moisture and carbon dioxide. Moreover, lutetium oxide is one of the promising laser host materials for high power and ultrashort pulse lasers. Lutetium oxide has a wide band gap (5.5 eV).

## Quick Facts

Product	:	Lutetium III Oxide Powder
Stock No	:	NS6130-12-000274
CAS	:	12032-20-1
Purity	:	99.99%
Color	:	White
Form	:	Powder



## Technical Specification

Formula	APS	Molecular Weight	Melting Point
$\text{Lu}_2\text{O}_3$	1-2 μm	397.94 g/mol	2,420 °C

## Chemical Composition

Product	Weight Percent (nominal)
Lutetium III Oxide Powder	$\text{Lu}_2\text{O}_3$ 99.99%

## Applications

- Superconducting materials
- Laser materials
- Catalysts
- Ceramics and glass

**INTELLIGENT MATERIALS PVT LTD**  
Derabassi  
Punjab (140507)  
INDIA

+91 9779 550077, 9779238252

**NANOSHEL UK LIMITED**  
Chapel House,  
Chapel St Cheshire,  
CW12 4AB United Kingdom

+44 1782 454 144, +44 74 105 48802

**NANOSHEL LLC**  
3422 Old Capitol Suit  
1305 Wilmington DE - 19808  
United States

+1 646 470 4911

ISO 9001:2015  
CERTIFIED COMPANY



20ZICE4589C



19ZAZGO1274G



20ZICE4588M

