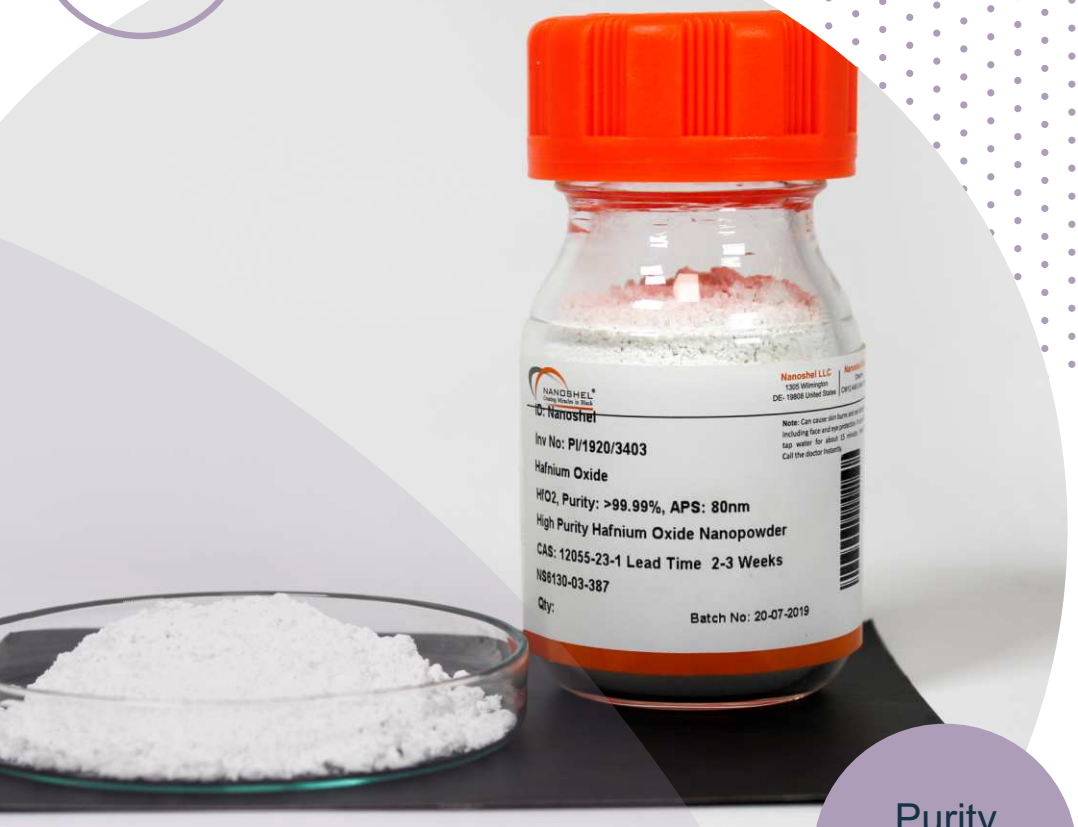
NANOSHEL
Creating Miracles in Black

HAFNIUM OXIDE NANOPOWDER



Purity
99.9%

HfO_2

NS6130-03-387

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HAFNIUM OXIDE NANOPOWDER

Hafnium is an inorganic compound which is also known as hafnia. Its chemical formula is HfO2. It is the most stable compound and electrically insulator. This compound has the same structure as ZrO2. It forms different crystal structure such as cubic, tetragonal, monoclinic and orthorhombic. It shows remarkable chemical and physical properties so that it is used in distinct fields. This compound has very high melting point and due to its refractive index, it has applications in protective coatings. HfO2 nanoparticles can be synthesized by various methods such as solvothermal, microwave—hydrothermal, hydrothermal, nonhydrolytic synthesis and precipitation methods Hafnium oxide has also applications in biosafety. This compound is densely packed and it has the ability to absorb the gamma/x-ray radiations, which helps to target in cellular components on tumor tissues for the radiotherapy. It has also physicochemical properties due to its high melting point, high chemical stability, and low optical losses.

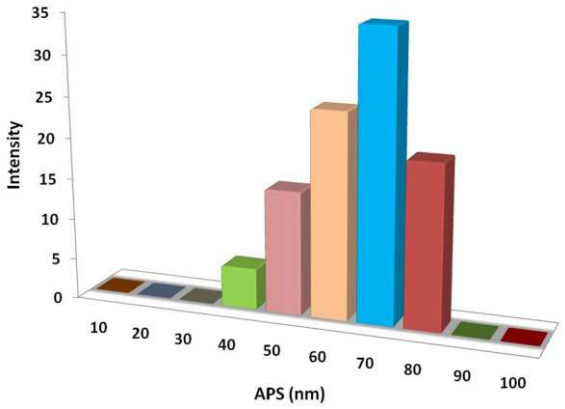
Quick FACTS

Product	:	Hafnium Oxide Nanopowder
Stock No	:	NS6130-03-387
CAS	:	12055-23-1
Color	:	White
Form	:	Powder
Symbol	:	Hfo_2
Group	:	Hafnium 4/Oxygen 16

Electronic Configuration:

[Xe] 4f14 5d2 6s2

Oxygen [He] 2s2 2p4



ADDITIONAL POWDER CHARACTERISTICS

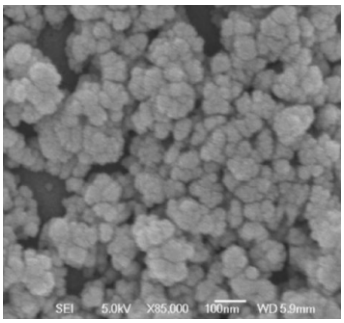
Stock No.	Purity	APS
NS6130-03-387	99.9%	<80nm

TECHNICAL SPECIFICATION

Molecular Formula	Molecular Weight	Density	Melting Point
HfO_2	210.49 g/mol	9.68 g/cm³	2758 °C

CHEMICAL COMPOSITION

Product	Weight Percent (nominal)	
	HfO_2	Other Metal
Hafnium Oxide Nanopowder	99.9%	1000ppm



APPLICATIONS

> Biosensors
> Tissue engineering
> Deoxyribonucleic acid modification
> Cosmetics
> Drug delivery systems
> Medical devices
> Optical coatings

20ZICE4589C 19ZAZGO1274G 20ZICE4588M

ISO 9001:2015
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