

Ruthenium(IV) Oxide Nanopowder

D Nanoshe

Ru02, Purity: 99%, APS: 80-100nm m Oxide Nano Powde MTime 2-3 Weeks, CAS: 12036-10-1

Batch #: Jul-2019

NS6130-12-000642

Qtv:

# **RUTHENIUM IV** O X I D E NANOPOWDER

Purity 99.9% RuO<sub>2</sub>









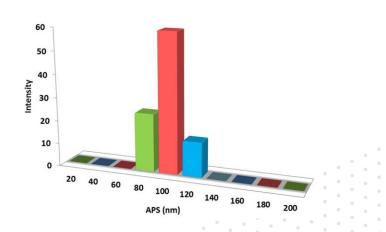
## RUTHENIUM IV OXIDE NANOPOWDER

Ruthenium(IV) oxide is the inorganic compound and it formula is RuO2. It is mostly utilized as an electrocatalyst for manufacturing chlorine, chlorine oxides. It is the most versatile materials because of its magnificent diffusion barrier properties, high thermal stability and low temperature resistivity. It is known to have very high capacitance at low resistance, possibly making it suitable for construction of high energy, high power supercapacitors.

Ruthenium oxide has ample of applications for instance in resistors, electrochemical capacitors, electrode material for supercapacitor application either as single oxide or mixed oxide, gas sensors as well as catalysts. RuO2 has high surface area and it is partially ordered structure exhibits high catalytic activity for the oxidation of CO to CO2 at low temperature. The synthesis of ruthenium oxide has been achieved by distinct methods, such as thermal synthesis, combustion synthesis, sol-gel and precipitation.

Quickfacts

Product	Ruthenium IV Oxide Nanopowder
Stock No	NS6130-12-000642
CAS	12036-10-1
Color	Black/Blue
Form	Powder
Symbol	R∪O₂



#### ADDITIONAL POWDER CHARACTERISTICS

Stock No.	Purity	APS		
NS6130-12-000642	99.9%	80-100nm		
TECHNICAL SPI	ECIFICATION			

Ν	/lole	ecular F	Form	iula	1	Molecular Weight	Density	Melting Point
		RuO₂				133.07 g/mol	6.97 g/cm <sup>3</sup>	1200 °C
	•				•	•		
	•							
•	•							

### CHEMICAL COMPOSITION

Product	Weight Percent (nominal)	
	RuO₂	Other Metal
Ruthenium IV Oxide Nanopowder	99.9%	1000ppm

#### **APPLICATIONS**

- > Resistors
- > Electrochemical capacitors
- > Electrode material
- > Gas sensors
- > Catalysts





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