

**NS6130-12-001139**

## Quick Facts

Product	:	Zinc Oxide Nanorods
Stock No	:	NS6130-12-001139
CAS	:	1314-13-4
Molecular Formula	:	ZnO
Form	:	Powder
Color	:	Yellow White

## Technical Specification

Molecular Weight	Density	Melting Point	APS
81.39 g/mol	5.6 g/cm <sup>3</sup>	1975 °C	40-50nm

In nanotechnology, nanorods are one morphology of nanoscale objects. Each of their dimensions range from 1–100 nm. They may be synthesized from metals or semiconducting materials. Standard aspect ratios (length divided by width) are 3–5. Nanorods are produced by direct chemical synthesis. A combination of ligands act as shape control agents and bond to different facets of the nanorod with different strengths. This allows different faces of the nanorod to grow at different rates, producing an elongated object.

## Applications:

- Zinc oxide nanorods are used in various fields such as optical, electrochemical, and even piezoelectric sensors due to their temperature stability, interesting optical, chemical, and electrical properties. Electron transfer in single crystals of zinc oxide occurs much faster. It brings good benefits to the devices that used this crystal, resulting from a high electron diffusion coefficient. Zinc oxide nanorods are also used in medicine and health and POC testing fields.

# ZINC OXIDE Nanorods

**Purity**  
99.9%



**ZnO**  
APS 40-50nm



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