

Eu/ZnO

NANO

**E**uropium **Z**inc  
Doped  
Oxide-Dispersion

**ZnO** is a semiconductor with wide band gap of 3.37 eV and large exciton binding energy of 60 meV at room temperature, including excellent chemical and thermal stability. To improve photocatalytic activities, lanthanide ions with 4f electron configuration have been doped into ZnO to delay recombination rate of the electron-hole pairs and to effectively eliminate the pollutants. ZnO doped with Europium will be an efficient way to improve the photocatalytic activity, because the electrons are effectively trapped by the supplied chemical valence

## Quick Facts

Purity	: 99.9 %
APS	: 3-6nm
Concentration	: Customer requirement
Dispersing Agent	: Organic Solvent (DMF), IPA, Ethanol, Water (ddH2O)
Form	: Slurry, Suspension, Dispersion, Colloidal

## Properties

- ✓ Unique optical
- ✓ Good electrical
- ✓ Good optoelectronic
- ✓ High photocatalytic activity
- ✓ Photochemical properties
- ✓ Excellent chemical and mechanical stability

## Applications

- ✓ Semiconductor-electronic technologies
- ✓ Fields including food, medicine
- ✓ Energy, optical, electrical, textile
- ✓ Biophotonics
- ✓ Luminescent nanomaterials for biological labelling
- ✓ Functionalised europium for in vitro imaging
- ✓ Development of new ink materials based on luminescent nanomaterials for the security labels of printing products such as passport and visa documents



Designed by : NANOSHEL LLC



20ZICE4589C



19ZA2GO1274G



20ZICE4588M

ISO 9001:2015  
CERTIFIED COMPANY

Follow us:



**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 (0) 74 105 488, +44 203 137 5187

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

+1 646 470 4911

