

Product Information

Inorganic core-shell encapsulated rare-earth UCNP

Cat. No.: X26-05-ZQ755

Size: 100 mg; 250 mg; 500 mg; 1 g; 5 g

Synonym: Inorganic-shell RE-UCNPs; Core-shell structured inorganic UCNP; Shell-passivated rare-earth nanostructures

This product is for research use only and is not intended for diagnostic use.

Product Information

Description	These inorganic core-shell encapsulated rare-earth upconverting nanoparticles (UCNPs) feature an active core protected by an epitaxial inorganic shell, such as NaYF ₄ or CaF ₂ . The shell layer is designed to isolate the lanthanide ions in the core from surface quenchers and solvent molecules, significantly increasing the luminescence quantum yield. This architecture is essential for research into high-efficiency upconversion and the reduction of surface-related energy loss.
Source	Custom synthesis
Form	Solid or powder
Purity	≥95%
Impurities	No visible impurities to the naked eye.
Identity	HPLC/MS/NMR
Stability	This product is stable for one year when stored at the recommended temperature in lyophilized powder.
Quality Level	Research grade
Storage	Store at -20°C.