Technical Data Sheet

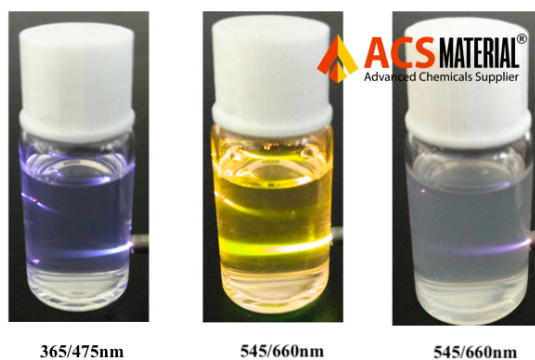ACS Material PEG-COOH Modified Upconverting Nanoparticles

Table of Contents

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Revision: 091718

1. Characterizations

Composition	PEG-COOH Modified Upconverting Nanoparticles	
Diameter	35 nm	
Appearance	Ivory white solution	
Crystal formula	$NaYREF_4$(RE: Yb, Er, Tm, Gd, Mn, Lu) @PEG-COOH	
Concentration	5 mg/mL	
Solvent	Water	
Dispersity of powder	Water or aqueous medium	
Excitation wavelength	975 nm	
Sensitizer	Ytterbium (Yb^{3+})	
Activator	Emission wavelength	Fluorescence
Thulium (Tm^{3+})	365/475 nm	Blue
Erbium (Er^{3+})	545/660 nm	Green-Yellow
Thulium (Tm^{3+})	804 nm	Near-infrared

365/475nm   545/660nm   545/660nm

Fluorescence Image of ACS Material PEG-COOH Modified Upconverting Nanoparticles, Excitation at 975 nm (reference only)
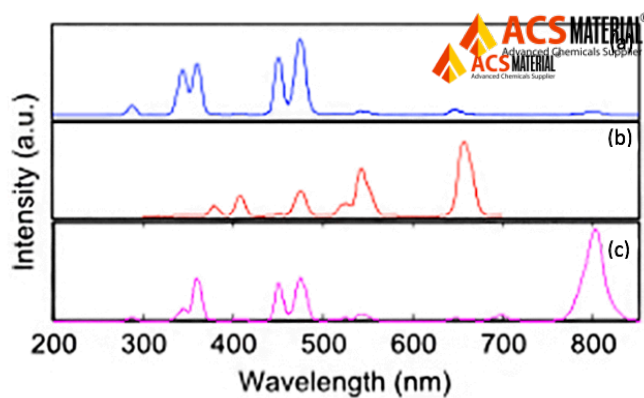
Upconversion Emission Spectra: a) 365/475nm, b) 545/660 nm, c) 804 nm of ACS Material PEG-COOH Modified Upconverting Nanoparticles, Excitation at 975 nm for reference only
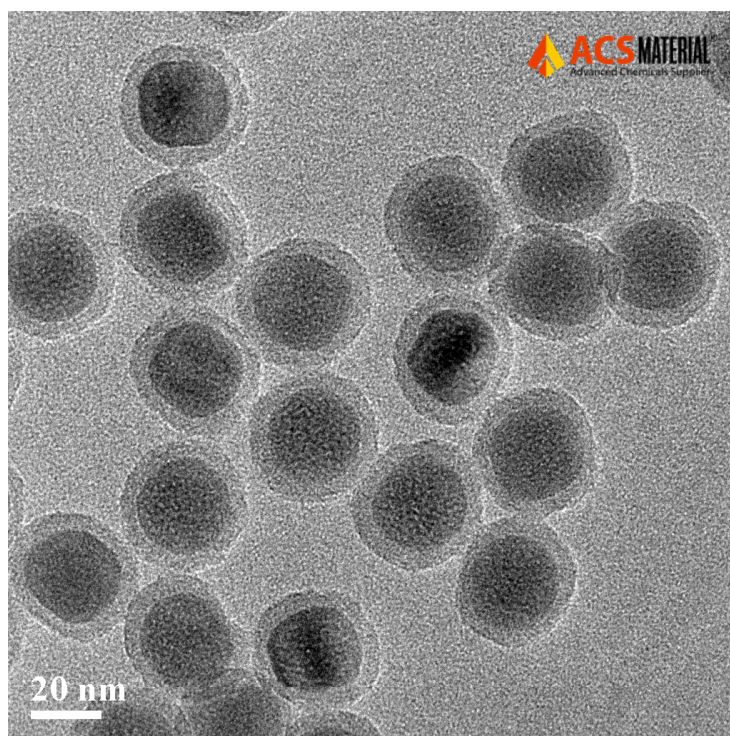
TEM Image of ACS Material PEG-COOH Modified Upconverting Nanoparticles

3. Application Fields

For scientific research only. Not to be used for any animal or human diagnostic/therapeutic purposes.

◆ Fluorescence imaging.

- ◆ Biodetection.
- ◆ Photodynamic therapy.
- ◆ Photoactivation of anti-cancer drugs and biomolecules *etc*.

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