



Product Information

Silver nanoparticle-decorated manganese tetroxide (Ag/Mn₃O₄)

Cat. No.: X26-06-ZQ2860

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

Synonym: Ag/Mn₃O₄; Silver nanoparticle-decorated manganese tetroxide nanospheres; AgNP-loaded Mn₃O₄ composite nanomaterials; Silver nanoparticle anchored manganese tetroxide heterostructures

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

Product Information

Description	This purely inorganic material displays a hetero-structured design composed of a crystalline manganese tetroxide (Mn ₃ O ₄) core assembly decorated with metallic silver (Ag) nanoparticles. The inorganic hetero-junction couples the distinct multi-valent manganese redox states and pseudocapacitive properties of the host oxide with the exceptional electrical conductivity and localized surface plasmon resonance (LSPR) of the silver phase. This stable configuration ensures low charge-transfer resistance while maximizing the surface chemical reactivity of the composite facets.
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
Applications	This product can be used to investigate multi-component metal-oxide electronic structures, study advanced heterogeneous catalytic oxidation pathways, and evaluate electrochemical charge storage kinetics.
Storage	Store at -20°C.