



>>Derivative: Ni(II) salt

Synonym(s): Iron(III) nickel oxide (Fe_2NiO_4). Ferric nickel oxide (Fe_2NiO_4). Nickel ferrite

CAS Registry Number: 12168-54-6

Extra CAS Registry Numbers(s): 12707-85-6

Molecular Formula: Fe_2NiO_4

Molecular Weight: 234.382

Accurate Mass: 233.784884

Percentage Composition: Fe 47.65%; Ni 25.04%; O 27.30%

Source/Synthesis: Occurs as the mineral *Trevorite*. Synth. e.g. by heating NiO and Fe_2O_3 powders. Nanosized, ultrafine material obt. by 'citrate precursor' method: $\text{NiNO}_3 + \text{Fe}(\text{NO}_3)_2 + \text{citric acid}$ heated at 90° to give gel; latter heated at $160\text{--}200^\circ$; further heat treatment at 280° leads to complete crystallisation of spinel phase

Physical Description: Black solid

Solubility: Insol. boiling HCl

Other Data: Inverse spinel; Curie point T_c $590\text{--}600^\circ$ magnetic studies reveal Hopkinson Effect, i.e. when cooling from T_c , magnetisation displays no maximum, increasing in presence of field

>>Derivative: Zn(II) salt

References:

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