



>>Derivative: Ni(II) salt

Synonym(s): Iron(III) nickel oxide (Fe₂NiO₄). Ferric nickel oxide (Fe₂NiO₄). Nickel ferrite

CAS Registry Number: 12168-54-6

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

Molecular Formula: Fe₂NiO₄

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 Fe₂O₃ powders. Nanosized, ultrafine material obt. by 'citrate precursor' method:

NiNO₃ + Fe(NO₃)₂ + citric acid heated at 90° to give gel; latter heated at 160-200°; 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 590-600° 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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