



>>Entry Name: Holmium phosphate (HoPO₄)

Synonym(s): Holmium(3+) phosphate (1:1), 9Cl, 8Cl. Holmium(3+) orthophosphate

CAS Registry Number: 14298-39-6

Related CAS Registry Numbers(s): 34054-53-0

HoPO₄

Molecular Formula: HoO₄P

Molecular Weight: 259.902

Accurate Mass: 259.883741

Percentage Composition: Ho 63.46%; O 24.62%; P 11.92%

Source/Synthesis: Synth. from Ho₂O₃ or HoF₃ + SiP₂O₇ at 1000-1200°; Ho(NO₃)₃ + NH₄H₂PO₄ and product heated at 800-1200°

Other Data: Antiferromagnetic phase trans. at -272°. $\Delta H_{1298}^{\circ} = -1924 \text{ kJ mol}^{-1}$. No magnetic trans. between -269° and *ca.* 350°

>>Derivative: Dihydrate

CAS Registry Number: 16827-78-4

Source/Synthesis: Synth. from Ho(NO₃)₃ + H₃PO₄ aq.

>>Derivative: Trihydrate (?)

CAS Registry Number: 17070-02-9

Source/Synthesis: Synth. from Ho(NO₃)₃ + H₃PO₄ aq.

Other Data: Tetragonal

References:

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