



>>Entry Name: Hafnium borides

CAS Registry Number: 12653-64-4

Molecular Formula: [BHf]

>>Variant: Hafnium boride (HfB), 9Cl, 8Cl

Synonym(s): Hafnium monoboride

CAS Registry Number: 12228-27-2

Molecular Formula: BHf

Molecular Weight: 189.301

Accurate Mass: 190.95585

Percentage Composition: B 5.71%; Hf 94.29%

General Statement: Observed only in ternary systems, and exists only when stabilised. Has the orthorhombic FeB-type struct.

Melting Point: Mp 2100 dec.°

>>Variant: Hafnium boride (HfB₂), 9Cl, 8Cl

Synonym(s): Hafnium diboride

CAS Registry Number: 12007-23-7

Molecular Formula: B₂Hf

Molecular Weight: 200.112

Accurate Mass: 201.965155

Percentage Composition: B 10.80%; Hf 89.20%

General Statement: Possesses the AlB₂-type struct.

Source/Synthesis: Synth. from elements

Use/Importance: Strong refractory when sintered

Melting Point: Mp 3315° (3240°)

Other Data: Dissolves completely only in conc. H₂SO₄ + K₂SO₄ or K₂S₂O₈ at the Bp. Unreactive to H₂SO₄ + K₂SO₄ or H₃PO₄ at r.t. Reactive to conc. HCl, conc. HNO₃ mixt. or acids contg. H₂O₂

References:

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