



>>Entry Name: Neodymium borides

Related CAS Registry Numbers(s): 37322-41-1

Molecular Formula: [BNd]

Other Data: NdB₁₂ appears not to have been reported; existence of NdB₆₆ in doubt

>>Variant: Neodymium boride (NdB₄), 9Cl, 8Cl

Synonym(s): Neodymium tetraboride

CAS Registry Number: 12007-77-1

Molecular Formula: B₄Nd

Molecular Weight: 187.484

Accurate Mass: 185.944939

Percentage Composition: B 23.07%; Nd 76.93%

Physical Description: Golden cryst.

Other Data: At 1850° *in vacuo* → NdB₆ + Nd. Antiferromagnetic

>>Variant: Neodymium boride (NdB₆), 9Cl, 8Cl

Synonym(s): Neodymium hexaboride

CAS Registry Number: 12008-23-0

Molecular Formula: B₆Nd

Molecular Weight: 209.106

Accurate Mass: 207.963549

Percentage Composition: B 31.02%; Nd 68.98%

Source/Synthesis: Synth. from Nd₂O₃ + B at 1500-1800°

Physical Description: Blue-violet solid

Melting Point: Mp 2610° (2540°)

Other Data: Fairly unreactive to dil. HCl or H₂SO₄. Dissolves easily in aqua regia. Stable to 650-700°. Ignites at 710°. Oxidises at >730° to Nd(BO₂)₃

References:

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