Reading Two Boron Nitride Structures

Scoring guide · one credit per question · review written work against each rubric

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Question 1

Choice (4)

The formula reports the overall atom ratio. The described bond arrangements differ.

Question 2

Layer sliding mainly changes the relative positions of neighboring layers. The stronger covalent bonds within a layer can remain intact while the weaker attractions between layers are overcome.

Question 3

Both samples have BN composition. The three-dimensional covalent network of N resists motion through the structure. In L, layers can shift past one another across weaker contacts, providing a way to deform.

Question 4

Look for covalent bonds extending out of the image plane and connecting atoms into a three-dimensional network. A structure consisting of separate sheets with only weaker contacts between them would support L.