

9. Which one of the following has the minimum boiling point?

- (1) n-Butane
- (2) 1-Butyne
- (3) 1-Butene
- (4) Isobutene

Solution:

Among the isomeric alkanes, the normal isomer has a higher boiling point than the branched-chain isomer. The higher the branching of the chain, the lower is the boiling point. The n-alkanes have more surface area in comparison to branched-chain isomers. So, intermolecular forces are weaker in branched-chain isomers. Hence they have lower boiling points in comparison to straight-chain isomers.

Hence option (4) is the answer.