

Exemplar Problems

Q4. Metal carbonates decompose on heating to give metal oxide and carbon dioxide. Which of the metal carbonates is most stable thermally?

- (a) MgCO_3
- (b) CaCO_3
- (c) SrCO_3
- (d) BaCO_3

Sol: (d) Thermal stability of metal carbonates increases as the electropositive character of the metal or the basicity of the metal hydroxide increases from Be(OH)_2 to Ba(OH)_2 . Thus, BaCO_3 is the most stable.