

Which of the following is true regarding the thermal stability of halides of Carbon family?

- a) $CX_4 > SiX_4 > GeX_4 < SnX_4 > PbX_4$
- b) $CX_4 > SiX_4 > GeX_4 > SnX_4 > PbX_4$
- c) $CX_4 > SiX_4 > GeX_4 > SnX_4 < PbX_4$
- d) $CX_4 < SiX_4 > GeX_4 > SnX_4 > PbX_4$

Answer: b

Explanation: All the elements of Carbon family give tetrahedral and covalent halides of the type MX_4 . The thermal stability follows in the decreasing order of $CX_4 > SiX_4 > GeX_4 > SnX_4 > PbX_4$ for the elements of group 14.