

the physical properties of isomers of C<sub>4</sub> H<sub>10</sub>

**Answer:**

There are two isomers: normal butane (n-butane) CH<sub>3</sub>(CH<sub>2</sub>)<sub>2</sub>CH<sub>3</sub> and 2-methylpropane (isobutane) (CH<sub>3</sub>)<sub>3</sub>CH. These are colorless gases which are soluble in organic solvents and insoluble in water. 2-methylpropane forms crystalline hydrates. The melting and boiling points are different. Butane has a melting point of 135.4K and 2-methylpropane has a melting point of 114K. The boiling point of butane is 272.6K and isobutane is 261K. It has to do with their structures.