

Question 3

- 3. Predict whether dimethyl ether or ethanol has the higher boiling point and explain your reasoning.**

Answer:

Hydrogen bonding increase the boiling point as the separation energy required here is more. In case of ethanol OH is the last so one hydrogen is attached with a very electronegative atom (oxygen) directly. So, both oxygen and hydrogen become polar and hence hydrogen bonding is possible here, which increase the boiling point of ethanol. In case of dimethyl ether oxygen is not directly attached with the hydrogen so hydrogen bonding is not possible, so its boiling point is less than ethanol