Answer on Question #55110 – Chemistry – Other

Question:

What is a Hydrogen bond?

Answer:

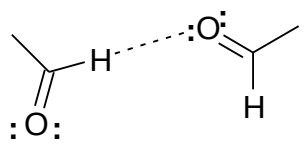
Hydrogen bonding is an attractive forces between hydrogen and second atom containing lone pair. It is represented by a dotted line:

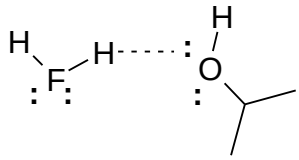
A-H···A-H, where A – the acceptor (atom with lone pair).

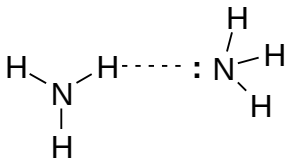
For instance, A can be O, F, N, S, Hal(halogens) and others.

The hydrogen bond is a very weak interaction with a strength of approximately 20 kJ. Also it can exist between two or more different molecules. The hydrogen bonding is only determined by the number of lone pairs and hydrogens. For one bond, it has to be one H and one lone pair.[1]

Graphical representations of hydrogen bonding are shown below:







Reference:

1. C. Chambers, A.K. Holliday, *Modern inorganic chemistry,* Butterworth & Co (Publishers) Ltd 1975.