

Answer on Question #64003 - Chemistry – Cheneral Chemistry

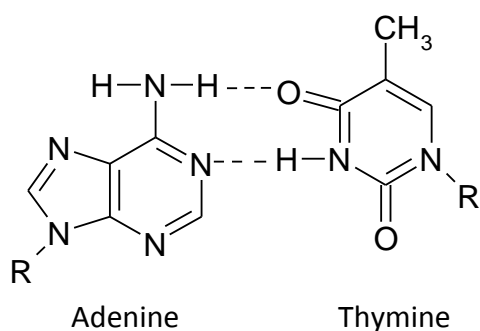
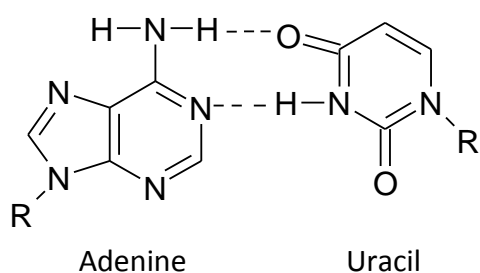
What is the structure showing the hydrogen bonding between uracil and adenine, and compared with that of adenine and thymine

Solution.

Hydrogen bonds are formed between hydrogen attached to an electronegative atom and an electronegative atom of a different molecules.

In both cases Adenine and Uracil (Adenine and Thymine) match up so that a hydrogen bond can form between exocyclic amino group at C6 on adenine and the carbonyl at C4 in uracil (thymine) and likewise a hydrogen bond can form between N1 of adenine and N3 of uracil (thymine). So in total two Hydrogen bond can form.

There are two hydrogen bonds as shown in the figure



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