STRONG IONIC HYDROGEN BONDS

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Ionic hydrogen bonds (IHBs) of 10-30 kcal/mol can affect significantly the energetics, conformation and solvation of ions. Some basic features include: Relations between IHB bond strength and proton affinities; ion solvation; intramolecular and intermolecular IHBs; and kinetic effects of IHB bond formation. The roles of IHBs in bioenergetics will be illustrated. Recent results on the solvation and deprotonation of radical ions will be also discussed.