

The structure of water in the supercooled LiCl aqueous solution through the transition from liquid to glass

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Abstract— In the framework of this study, we use the Reverse Monte Carlo (RMC) simulation to observe the static behavior of the water molecule. The effects of the presence of ions in the aqueous electrolyte solution and the temperature on the intern structure of water are discussed. The used technique of simulation is based only on the available experimental data and allows creating 3-dimesional configurations of the system. Structural parameters are calculated from the atomic network of water molecules and ions.

Keywords— Water; Partial and pair distribution functions; RMC simulation; Aqueous electrolyte solution.