

Abstract Submitted
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Electron Transfer Mechanism in Proteins at Different Temperatures AISHA BIN DARWEESH, SAMINA MASOOD, Department Of Physics Univ of Houston - Clear Lake — Electron transfer probability in proteins is calculated as a function of temperature. The rate of single-step electron transfer reaction is mediated by through-bridge tunneling. The energy of electron is expressed as a function of temperature of electrons. Tunneling pathways and their interferences in proteins depend on the temperature and help to determine the structure of proteins. Deep tunneling effects are also discussed. Vibrational quantum effects as well as the inelastic tunneling and hopping of electrons in protein medium is also studied.

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