No Long-Lived Coherent Oscillations in Proteins at Room Temperature

ROBERT AUSTIN, MICHAEL WHITE, Princeton University — A recent PRL (PRL 95, 253601 (2005)) suggested that proteins could have very narrow holes (Hz wide) burnt into their electronic spectra at 300K, and suggested that “snail-paced” light group velocity light could result. We will show that the authors mistook conformational diffusion phase shifts for narrow lines and show that there are no narrow long-lived holes in a protein spectra at 300 K nor is there any snail-paced light.