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Computational Analysis of Intermolecular Coulombic Decay Effects in DNA nucleotide Photoionization[1] E. L. VARGAS, J. ROBERTSON, V. M. ANDRIANARIJAONA, Department of Physics, Pacific Union College, Angwin, CA 94508 — Intermolecular Coulombic Decay (ICD) is the process of how electrons return to their original state after excitation and how this affects their immediate environment. In a previous research presentation we had considered the hypothetical applications of Intermolecular Coulombic Decay on the adhesiveness of coding proteins within DNA molecules. This presentation is a continuation of the previous [1] in that the results of our DFT-based computational calculations of the ionization potentials of nucleotides and their excitation energies will be presented, as well as how they influence their surroundings. [1] E.L. Vargas, et al.: http://meetings.aps.org/Meeting/MAR15/Session/P1.109

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