Supplementary Information

Multiphonon Resonant Raman Scattering and Photoinduced Charge-Transfer Effects at ZnO-molecule Interfaces

Zhu Mao,† Wei Song,† Xiangxin Xue,† Wei Ji,† Lei Chen,† John R. Lombardi,‡ and Bing Zhao*,†

† State Key Laboratory of Supramolecular Structure and Materials, Jilin University, Qianjin Street 2699, Changchun 130012, P.R. China

‡ Department of Chemistry, The City College of New York, New York, New York 10031, United States

Email: zhaob@mail.jlu.edu.cn

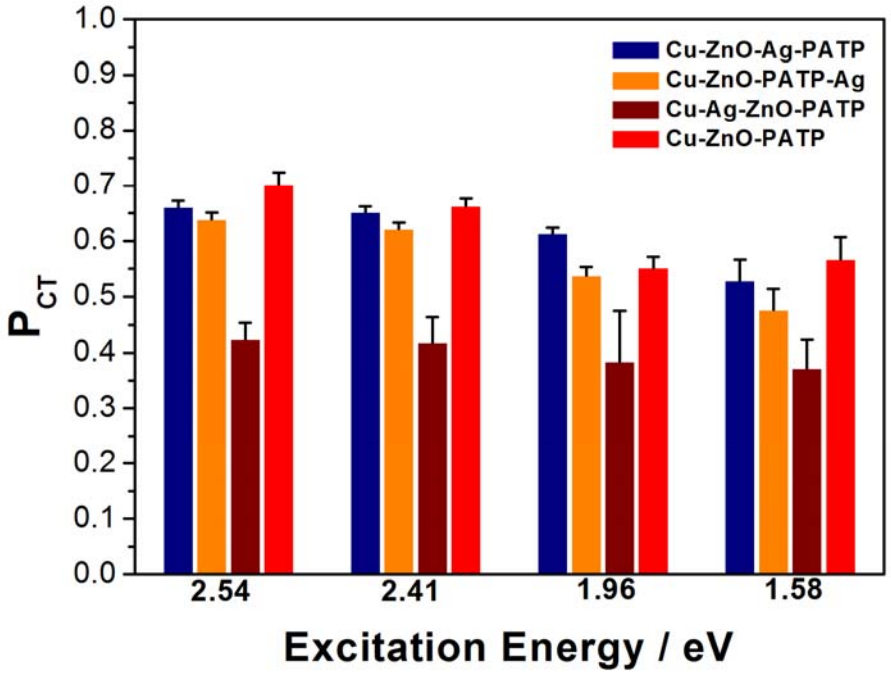

Figure S1. Degree of charge-transfer (P_{CT}) as a function of excitation wavelengths of the Cu-ZnO-PATP-Ag, Cu-ZnO-Ag-PATP, Cu-Ag-ZnO-PATP, and Cu-ZnO-PATP models with excitation wavelengths at 488, 514.5, 633, and 785 nm.

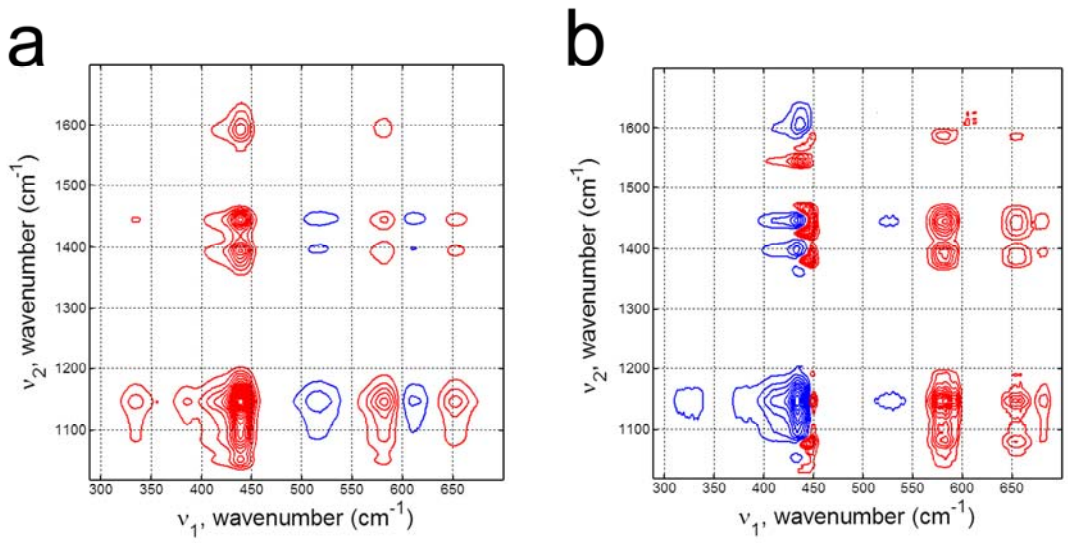

Figure S2. (a) synchronous and (b) asynchronous 2D Raman correlation spectra in the region of 280-700cm^{-1} and 1000-1700cm^{-1} from the simulated spectra in Figure 2. The red and blue lines represent positive and negative cross-peaks, respectively.