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Abstract for an Invited Paper for the DAMOP18 Meeting of the American Physical Society

Low Energy Electron Scattering from Molecular Hydrogen and Carbon Monoxide¹ MURTADHA KHAKOO, California State University Fullerton

We will present measurements of differential cross sections for excitation of the valence states of molecular hydrogen using conventional electron spectroscopy as well as the b-state of molecular hydrogen using electron time-of-flight spectroscopy. Comparisons with the Convergent Close-coupling theory for molecular hydrogen will be made and shows excellent agreement with the b-state and very good with the valence states. We will also present measurements of differential cross sections for excitation of valence and Rydberg states of carbon monoxide from near-threshold for the a-state up to 20 eV and make comparisons with available measurements and theory for excitation of 9 electronic states.

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