Abstract Submitted for the MAR16 Meeting of The American Physical Society

Non-adiabatic Dynamics of Molecules in Optical Cavities¹ MARKUS KOWALEWSKI, KOCHISE BENNETT, SHAUL MUKAMEL, Department of Chemistry, UC Irvine — Molecular systems coupled to optical cavities are promising candidates for a novel kind of photo chemistry. Strong coupling to the vacuum field of the cavity can modify the potential energy surfaces opening up new reaction pathways. We present a derivation of the non-adiabatic couplings for single molecules in the strong coupling regime. The possibilities for photo chemistry are demonstrated for a set of model systems representing typical situations found in molecules.

¹Supported by the Alexander von Humboldt Foundation

Markus Kowalewski Department of Chemistry, UC Irvine

Date submitted: 06 Nov 2015

Electronic form version 1.4