Abstract Submitted for the TSF16 Meeting of The American Physical Society

Time-resolved Studies of 1,3,6-Substituted Fulvenes ANNE WERKLEY, US Air Force Academy, NICK GODMAN, SCOTT IACONO, Chemistry Research Center, US Air Force Academy, KIMBERLY DE LA HARPE, Department of Physics, US Air Force Academy, US AIR FORCE ACADEMY TEAM — Fulvene-based compounds are of interest as accepting moieties in donor-acceptor organic molecules for molecular electronic materials. The photophysical and electrochemical properties of these compounds have been shown to be highly tunable depending on the fulvene ring substitution<sup>1,2</sup>. We report steady-state absorption and emission measurements along with emission lifetimes for a series of 1,3,6-substitued fulvene compounds. A better understanding of the excited-state dynamics of these compounds can guide the development of compounds optimized for use in donoracceptor organic molecules and other applications. <sup>1</sup>A.J. Peloquin, R.L. Stone, S.E. Avila, E.R. Rudico, C.B. Horn, K.A. Gardner, D.W. Ball, J.E.B. Johnson, S.T. Iacono, G.J. Balaich, J. Org. Chem. 2012, 77, 6371-6376. <sup>2</sup>E. Shurdha, B.K. Repasy, H.A. Miller, K. Dees, S.T. Iacono, D.W. Ball, G.J. Balaich. RSC Adv., 2014, 4, 41989-41992.

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