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A simple model of laser-induced molecular ionization and dissociation ¹ B.D. ESRY, P.Q. WANG, A.M. SAYLER, K.D. CARNES, I. BEN-ITZHAK, J.R. Macdonal Lab, Dept. of Physics, Kansas State University — We will present a simple qualitative picture with which both dissociation and ionization of a molecule in an intense laser can be understood. Moreover, the model has predictive power. One can use it, for instance, to deduce the main features of the angular distribution of the nuclear fragments and how it depends on the laser frequency and intensity. A comparison of this prediction with experiment will be presented.

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Brett Esry J.R. Macdonald Lab, Dept. of Phys., Kansas State University

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