Abstract Submitted for the GEC08 Meeting of The American Physical Society

Dissociative recombination of CF^{+1} VALERY NGASSAM, A.E. OREL, Engr Applied Science, Univ of California Davis — We present results from our recent studies of the dissociative recombination of the CF^+ ion. Extensive calculations of energy positions and autoionization widths for the doubly excited states of CF between the first and second ionization thresholds have been obtained from electron scattering calculations using the complex Kohn variational method, followed by calculations of the dissociative recombination process using the time dependent wave packet method. All dissociative states in each molecular symmetry, were included. The resonances leading to dissociation into the product channels will be discussed and the calculated cross sections will be reported and compared to available experiment.

¹This work was supported by the U.S. DOE Office of Basic Energy Sciences, Division of Chemical Sciences and the National Science Foundation, PHY-05-55401.

Valery Ngassam Engr Applied Science, Univ of California Davis

Date submitted: 16 Jun 2008

Electronic form version 1.4