## SEEING MOLECULES USING COULOMB EXPLOSION IMAGING

P. R. BUNKER and G. OSMANN, Steacie Institute for Molecular Sciences, National Research Council of Canada, Ottawa, Ontario K1A 0R6, Canada; W. P. KRAEMER, Max Planck Institute for Astrophysics, D-85740 Garching, Germany.; PER JENSEN, FB 9 - Theoretische Chemie, Bergische Universität - Gesamthochschule Wuppertal, D-42097 Wuppertal, Germany.

We have used the rovibronic wavefunctions that we obtain using our computer program RENNER (see the preceding talk) to calculate the average distribution of bending angles for  $CH_2^+$  molecules at 300 K<sup>a</sup>. In this talk the comparison of these results to those obtained in very recent Coulomb Explosion Imaging (CEI) experiments<sup>b</sup> will be discussed. Further we explain the interest in doing state selected CEI, and also discuss results we have obtained for the  $H_2O^+$  and  $NH_2^+$  molecules<sup>c</sup>.

<sup>&</sup>lt;sup>a</sup>G. Osmann, P. R. Bunker, W. P. Kraemer, and P. Jensen, Chem. Phys. Lett. 309, 299 (1999).

<sup>&</sup>lt;sup>b</sup>D. Schwalm, private communication.

<sup>&</sup>lt;sup>c</sup>G. Osmann, P. R. Bunker, W. P. Kraemer, and P. Jensen, *Chem. Phys. Lett.* 318, 597 (2000).