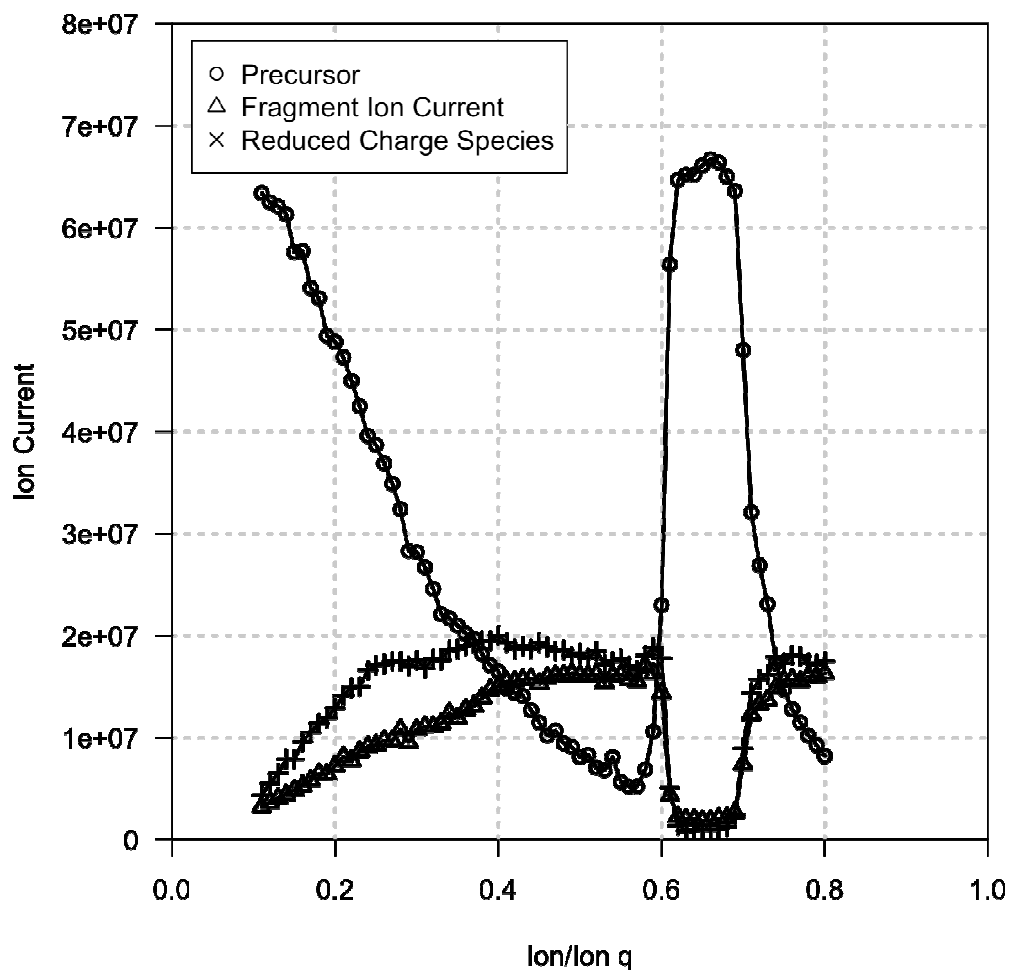


Supporting Information:

Ion Current vs. Ion/ $\ln q$ for Angiotensin and Fluoranthene



Supporting Figure 1: Precursor, fragment and reduced charge species ion currents demonstrating the presences and location of a parametric resonance induced by the interaction of the lens and main RF voltages applied during and ETD reaction. In the region between $q = 0.6$ and $q= 0.8$, the reagent ion is no longer trapped, resulting in no ETD reaction.