

## Electronic Supplementary Information to Laser-induced fragmentation of coronene cations

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This Electronic Supplementary Information contains further information to the main manuscript. Here, we present the full time-of-flight (TOF) mass spectra following the dissociation of coronene cations after irradiation with 630 nm laser light at 2.4 mJ/pulse. The RF voltage was tuned to 1300 V, leading to a low-mass cut off of  $m/z = 80$ .

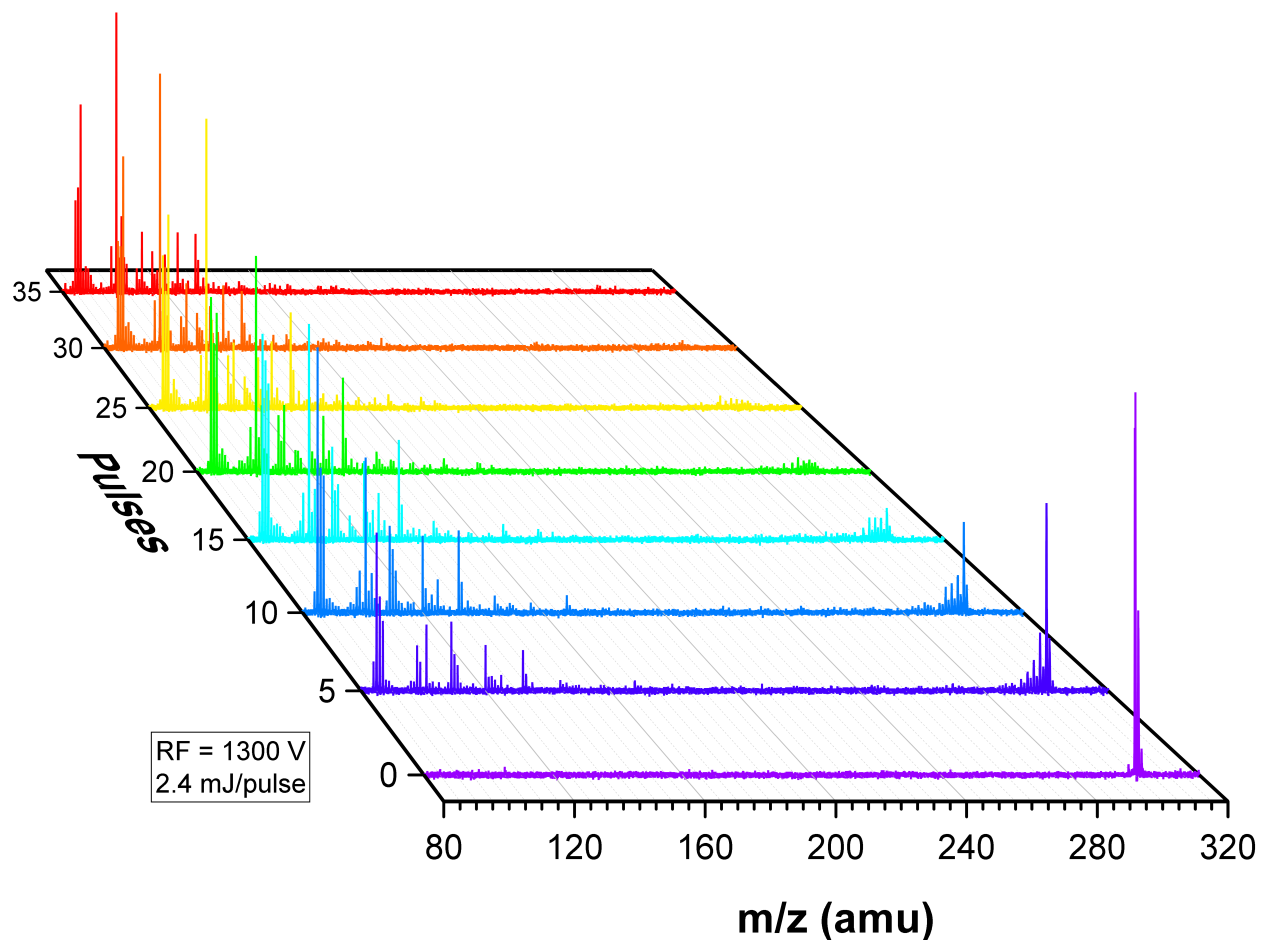


Figure S1: TOF mass spectra of coronene radical cations irradiated at 2.4 mJ/pulse, in the  $m/z = 320$ -80 range. The RF pulse was tuned to 1300 V in order to facilitate the capture of low mass dissociation fragments.

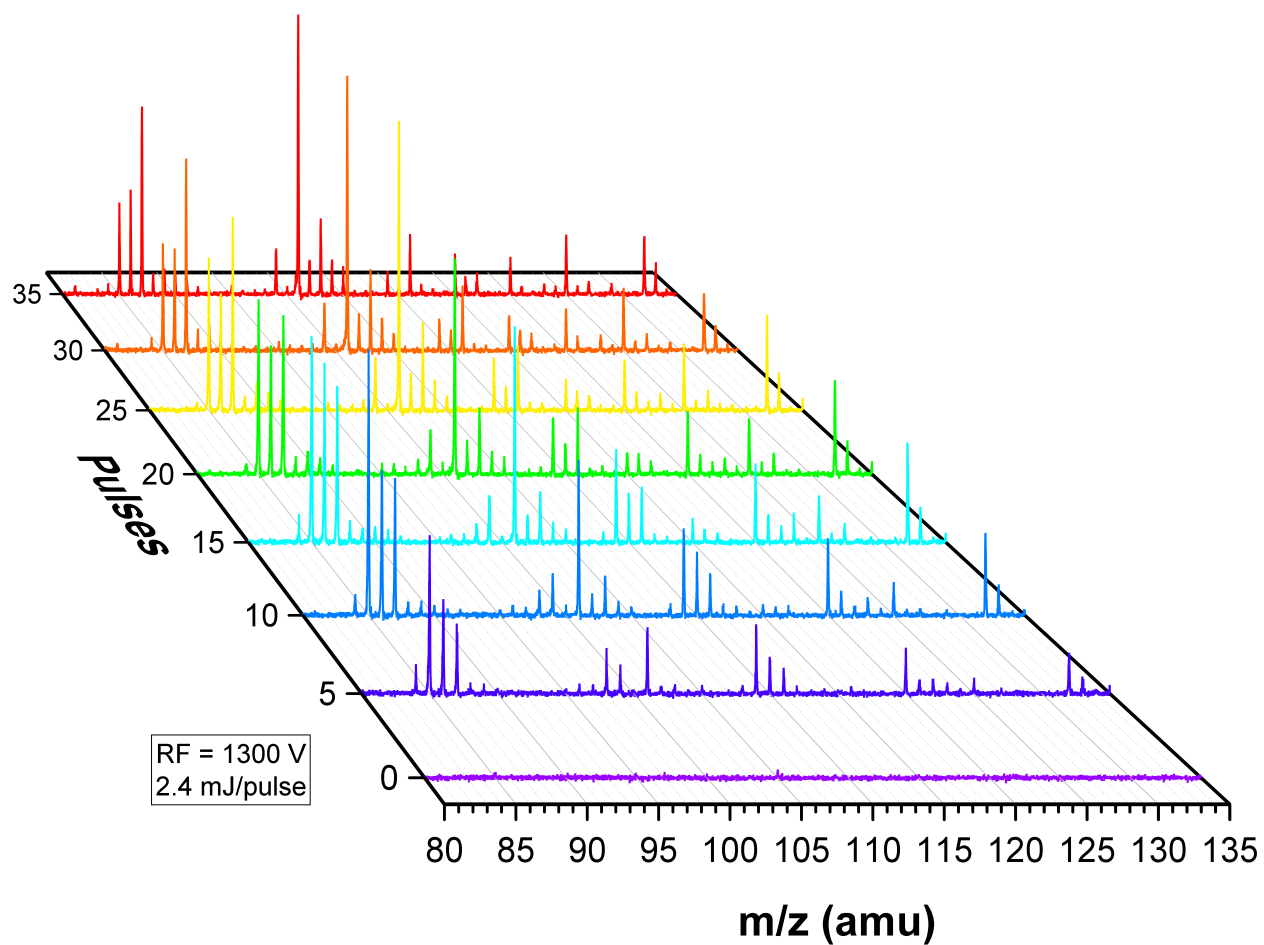


Figure S2: TOF mass spectra of coronene radical cations irradiated at 2.4 mJ/pulse, in the  $m/z = 320$ -80 range. The RF pulse was tuned to 1300 V in order to facilitate the capture of low mass dissociation fragments. This figure is a zoom-in of Fig.S1.