FEMTOSECOND CORRELATION SPECTROSCOPY

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We developed a kinetic-energy resolved time-of-flight mass spectrometry with femtosecond time resolution. The correlation of time, speed, orientation and state of reaction products was obtained. With these four resolution(s), a variety of chemical reactions was studied and new phenomena were discovered. Here, the classic example of bimolecular charge-transfer reactions of benzene with iodine and iodine monochloride will be given in detail.