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Double Photoionization of Naphthalene and Azulene[1] RALF WEHLITZ, PAVLE JURANIĆ[2], Synchrotron Radiation Center, Univ. of Wisconsin-Madison — We have determined the double-to-single photoionization ratio of naphthalene ($C_{10}H_8$) and its isomer azulene from threshold to high photon energies using synchrotron radiation. While the overall photon-energy dependence of the ratio is very similar for both molecules, the absolute values of their ratios are clearly different indicating an isomer effect. Previously, an isomer effect for double ionization by electron impact has been observed for C_3H_4.[3] Our results demonstrate that double photoionization is sensitive to the structure of a molecule and not just to its constituents.

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