ELECTRONIC AND PHOTOELECTRON SPECTROSCOPY OF TOLUENE

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Electronic and photoelectron spectra of toluene are presented and discussed. The utilization of a recently reported scheme for assigning the normal vibrations of substituted benzenes allows these spectra to be compared to those of other molecules with unprecedented clarity.[a] Changes in vibrational activity within a series of substituted benzene molecules will be discussed, specifically the increased rate of intramolecular vibrational energy redistribution observed in molecules where the substituent is a methyl group.

[a] A. M. Gardner and T. G. Wright, *J. Chem. Phys.*, **135**, 114305 (2011)