

## ELECTRONIC AND PHOTOELECTRON SPECTROSCOPY OF TOLUENE

ADRIAN M. GARDNER, ALISTAIR M. GREEN, VICTOR TAMÉ-REYES and TIMOTHY G. WRIGHT,  
*School of Chemistry, University of Nottingham, University Park, Nottingham, NG7 2RD, UK.*

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.<sup>a</sup> 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.

---

<sup>a</sup>A. M. Gardner and T. G. Wright, *J. Chem. Phys.*, **135**, 114305 (2011)