CONSISTENT ASSIGNMENTS OF THE VIBRATIONS OF SUBSTITUTED BENZENES

ADRIAN M. GARDNER and TIMOTHY G. WRIGHT, *School of Chemistry, University of Nottingham, University Park, Nottingham, NG7 2RD, UK*.

When substituted benzene molecules become the subject of a spectroscopic study, one is often haunted by the knowledge of the confusion that awaits owing to the various vibrational labeling schemes, conventions and assignments that have been employed in the past are unraveled. Here, we attempt to alleviate this frustration through the development of a scheme which unites the normal modes of vibration of all mono-substituted benzene molecules based on those of fluorobenzene.[a]

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