## Electron energy loss spectra of 1,4-cyclohexadiene

Reference: Knut R. Asmis, Dunja M. Frey and Michael Allan, Université de Fribourg (unpublished).

Dunja M. Frey, diploma thesis, Fribourg 1994

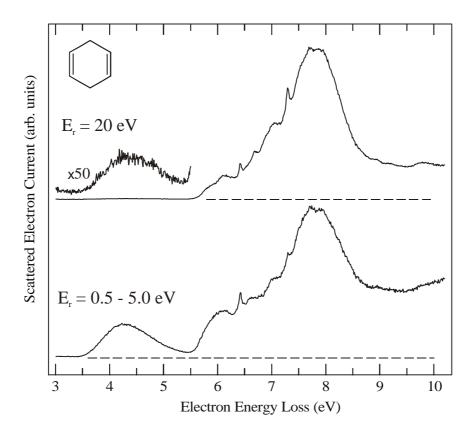


Fig. 1 Spectra representative of dipole-allowed (top) and spin-forbidden transitions (bottom). The triplet states are seen weakly even in the upper spectrum. The lower spectrum is a sum of spectra recorded with residual energies of 0.5, 1.0, 2.5, and 5.0 eV.

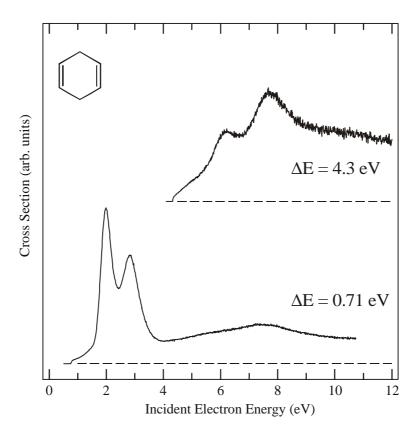


Fig. 1 Representative excitation functions for vibrational excitation (bottom) and the excitation of the lowest triplet band (top). (The lowest triplet band is due to two overlapping transitions.) Two  $\pi^*$  shape resonances at 1.93 and 2.70 eV and a  $\sigma^*$  shape resonance at 7.5 eV can be seen in the lower curve. The upper curve shows two core-excited resonances.