The consistency of the labelling and assignments of the vibrational frequencies of the chloro- and bromo- monosubstituted benzene molecules is investigated in their first electronically excited states ($S_1$). The assignments given utilise a recent nomenclature discussed in a previous talk, allowing the ring-localised vibrations to be compared straightforwardly across different monohalosubstituted benzenes. For the $S_1$ state, one-colour resonance-enhanced multiphoton ionization (REMPI) spectroscopy was employed. The assignments of the frequencies include previous work but also the calculated wavenumbers for both fully hydrogenated monohalosubstituted benzenes (-$h_5$) and the deuterated isotopologues (-$d_5$) employing time-dependent density functional theory (TDDFT).