The $D_0 \leftrightarrow D_1$ transitions of many aromatic resonance stabilised radicals (RSRs) have been observed in the gas-phase in recent years. This work has been primarily motivated by the suggestion that such molecules may be carriers of the diffuse interstellar bands (DIBs). Most gas-phase studies of these molecules have focused on the $D_0 \leftrightarrow D_1$ electronic transitions, primarily due to experimental limitations. These transitions are generally weak, a feature of odd-alternate hydrocarbon radicals, with intensity instead going to an electronically similar higher energy transition. This presentation will focus on higher electronic transitions with calculated intensity $f > 10^{-2}$. Experimental data will be presented for observed strong transitions of three benzilic polycyclic aromatic hydrocarbons (PAHs) radicals’ 1-naphthylmethyl, 2-naphthylmethyl and 9-anthracenylmethyl. Experimental data will also be presented of a strong state of the aromatic/aliphatic RSR 1-phenylpropargyl. Trends in this experimental and theoretical data will be used to predict the spectroscopic properties of larger RSR molecules, and the relevance of these higher electronic states to astronomical observations will be discusses.