Electronic Supplementary Material (ESI) for Physical Chemistry Chemical Physics.

Supporting Information

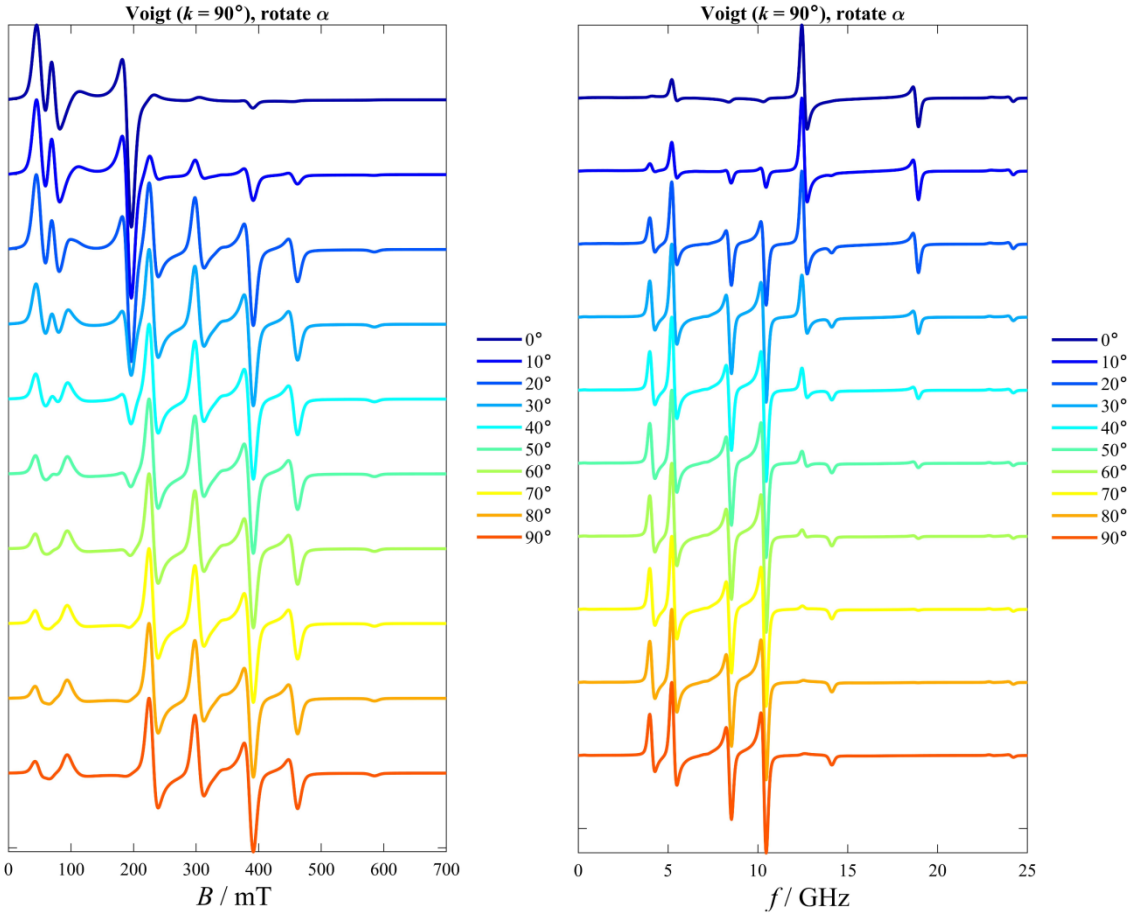

Figure S1. Spectral simulations for different microwave polarization angles in the Voigt configuration. For α = 0 we obtain the analogue of parallel-mode spectra ($\mathbf{B}_1 \| \mathbf{B}_0$) and for α = 90° we obtain the analogue of perpendicular-mode spectra ($\mathbf{B}_1 \perp \mathbf{B}_0$). For field-swept spectra f = 9.514 GHz, and for frequency-swept spectra B_0 = 258 mT.

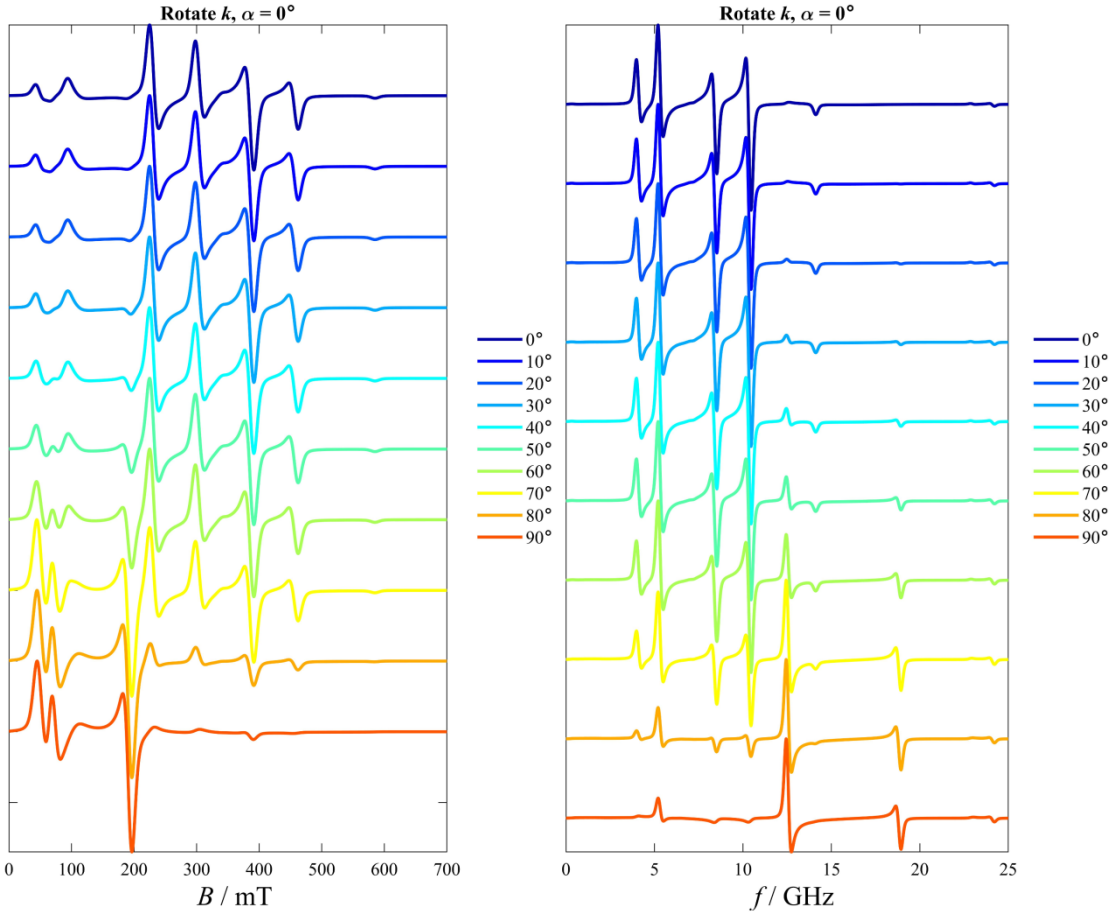

Figure S2. Spectral simulations for different orientations of the *k*-vector relative to the Zeeman field between 0 (Faraday) and 90° (Voigt). For the α = 0 angle shown, the rotation corresponds to a transition from perpendicular- to parallel-mode EPR. For an angle α = 90° (not shown) all *k*-vector orientations correspond to perpendicular-mode EPR and no spectral changes are predicted. The microwave frequency and magnetic field for the two simulated experiments are as in the figure above.

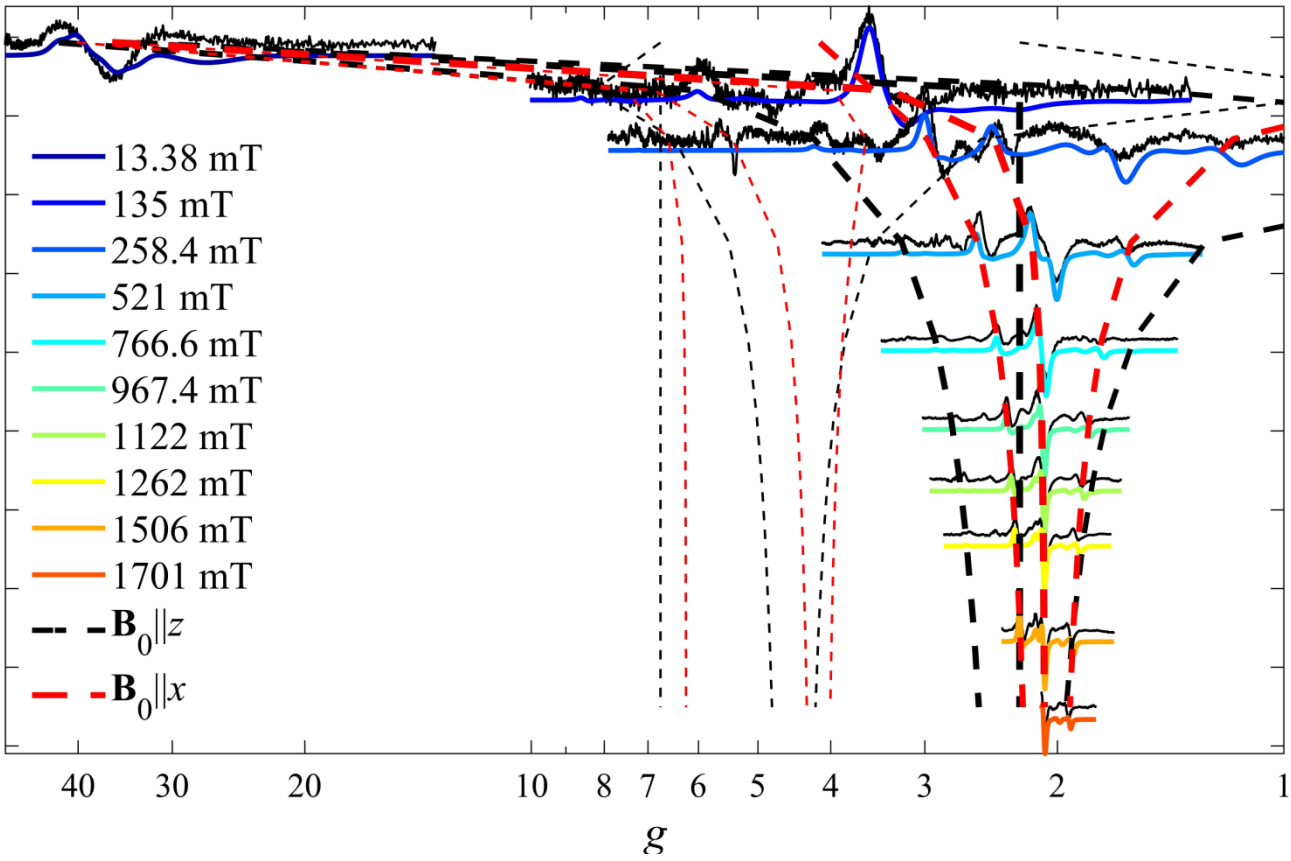

Figure S3. Field-swept spectra of Figure 7 plotted in a g-scale. The g-axis is logarithmic to better illustrate the 13 mT spectrum which spans the g = 14-64 region. For visual agreement with field-swept spectra, the phases of the spectra have been rotated by π, i.e. they have been flipped on the y-scale.