

A Continuous-Wave EPR Investigation into the Photochemical Transformations of the Chromium(I) Carbonyl Complex $[\text{Cr}(\text{CO})_4\text{bis}(\text{diphenylphosphino})]^+$ and Reactivity with 1-hexene

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Supporting Information

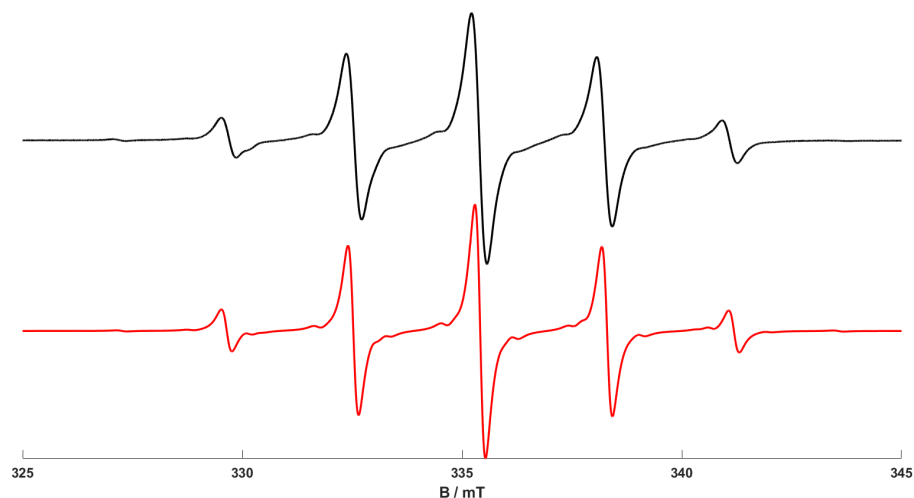


Figure S1. CW X-band EPR spectrum of the *trans*-[Cr(CO)₂(dppp)₂]⁺ complex (**3**) recorded at 293 K (using 1 mM of (**1**) dissolved in dichloromethane) following 365 nm radiation at room temperature.

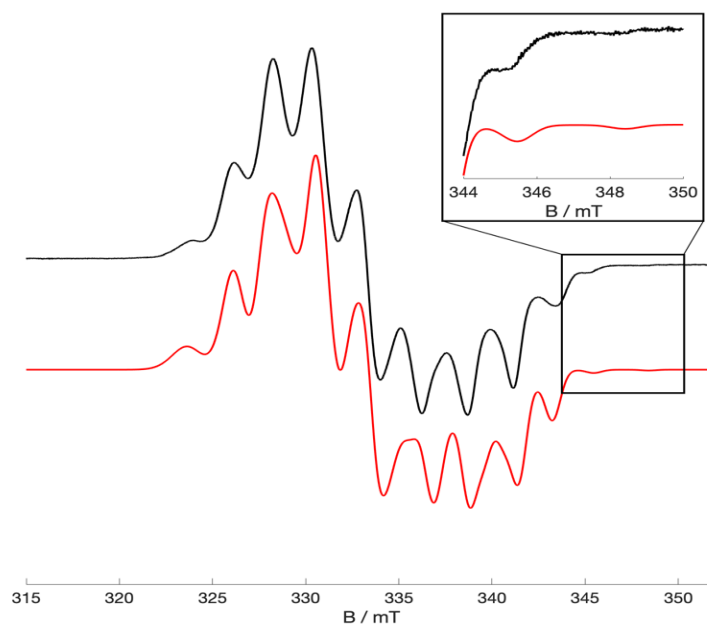


Figure S2. CW X band EPR spectrum (recorded at 140 K) obtained following room temperature UV irradiation (at 380 nm) of [Cr(CO)₄(dppp)]⁺ (**1**) (using 1 mM of (**1**) dissolved in DCM). The simulated spectrum (shown in red) was obtained using weighted contributions of [Cr(CO)₄(dppp)]⁺ (11%), *mer*-[Cr(CO)₃(κ¹-dppp) (κ²-dppp)]⁺ (86%) and *trans*-[Cr(CO)₂(dppp)₂]⁺ (3%). This experiment is analogous to the result presented in Figure 2 (main

paper), except in that case the 'photochemical yield' of (2) was 100%, and in this case the yield was only 86%; this highlights the slight variability in the photochemical transformation at this wavelength.

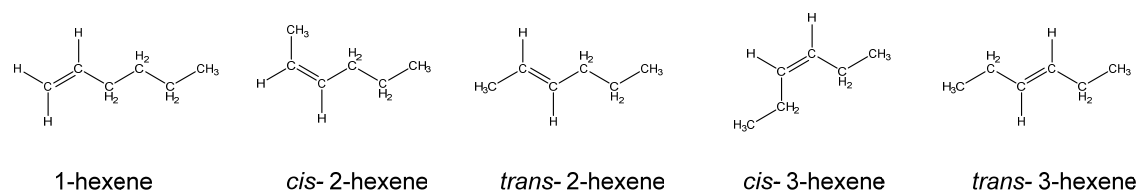


Figure S3. Schematic showing the different isomers of hexene studied here.