A look into the photochemical reaction products of tricarbonylmethylcyclopentadienylmanganese and triphenylphosphine

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I. Introduction
   a. Photochemical Reactions:
      i. General Characteristics
      ii. Reactions Specifics:
         1. Reactants: Mn(CO)$_3$(CH$_3$Cp) and PPh$_3$
         2. Products: Mono and Di Substituted

II. Methods of Analysis
   a. Structures
   b. Bonding
   c. Electronic States and Excitations
   d. Spectra
      i. IR, UV/Vis…

III. Analysis and Discussion
   a. Compare and contrast Mn(CO)$_3$(CH$_3$Cp), Mn(CO)$_2$(CH$_3$Cp)PPh$_3$, and Mn(CO)(CH$_3$Cp)(PPh$_3$)$_2$ using results obtained from methods section.
   b. Illustrate why Mn(CO)$_2$(CH$_3$Cp)PPh$_3$, and Mn(CO)(CH$_3$Cp)(PPh$_3$)$_2$ are different colors and have different yields.

IV. Conclusion

V. References