

# Supplementary Materials: Influence of Ionic Liquids on an Iron(III) Catalyzed Three-Component Coupling/Hydroarylation/Dehydrogenation Tandem Reaction

Maren Muntzeck and René Wilhelm

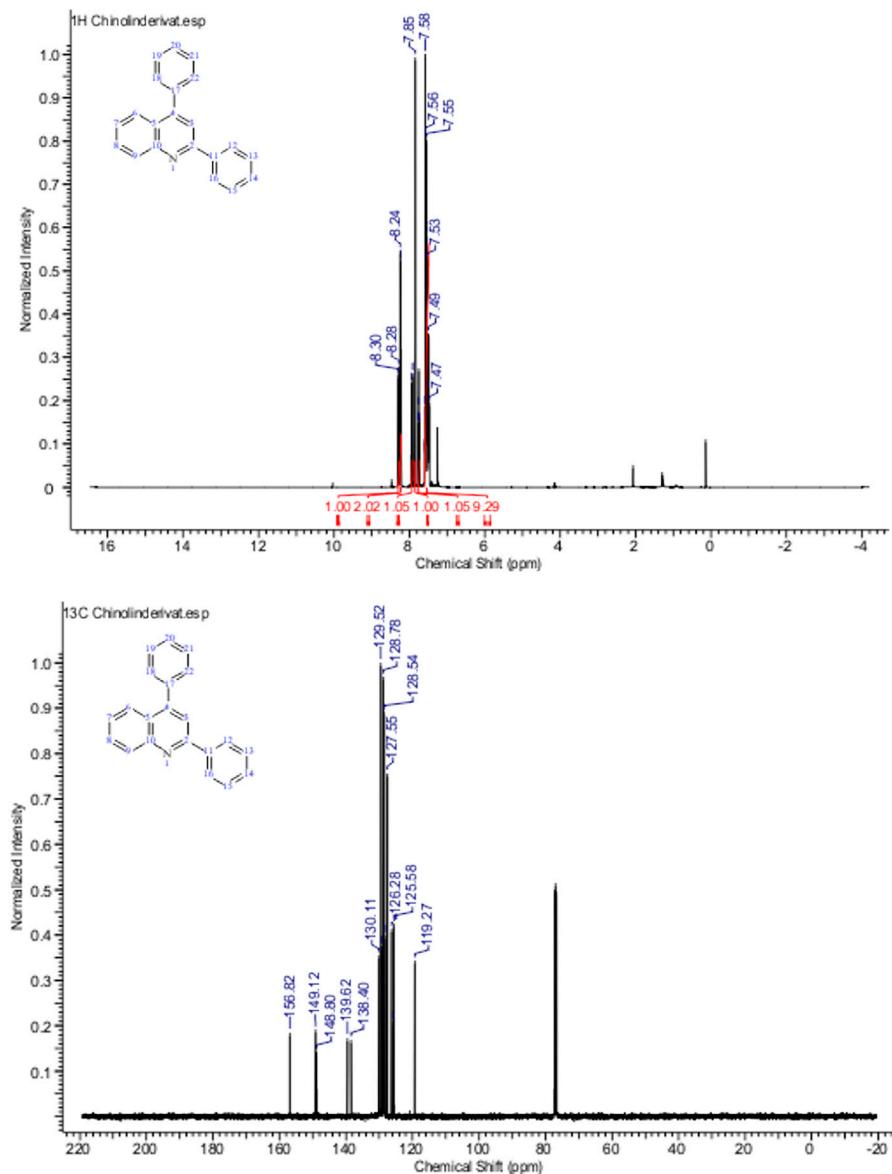
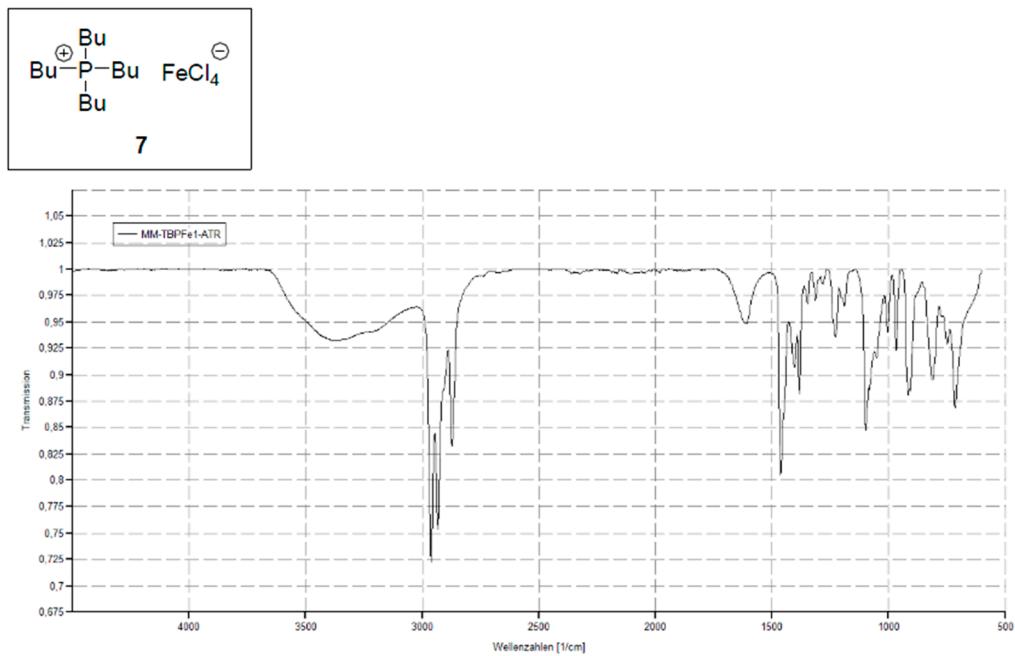
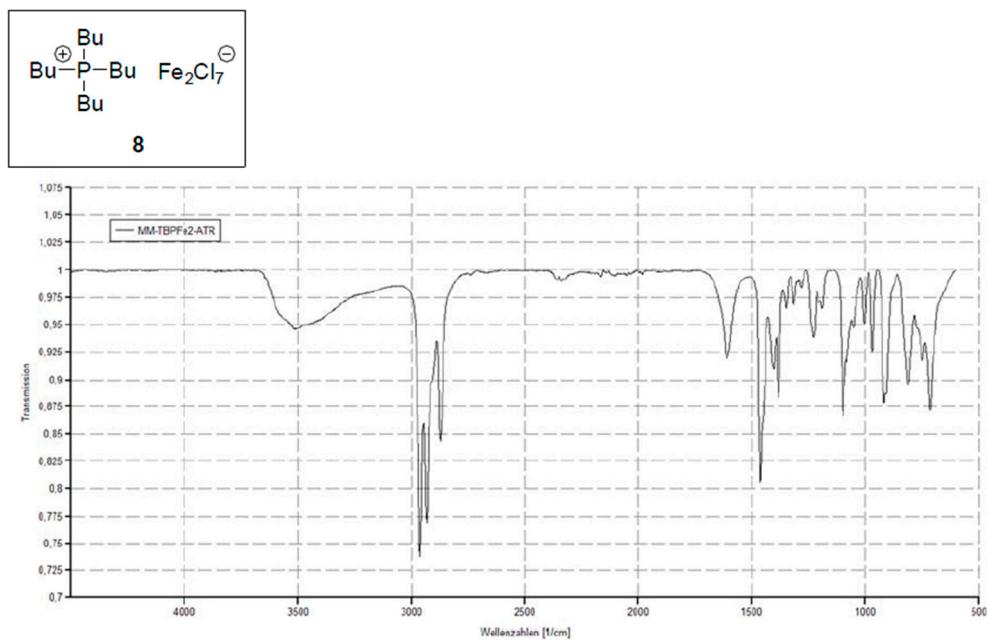


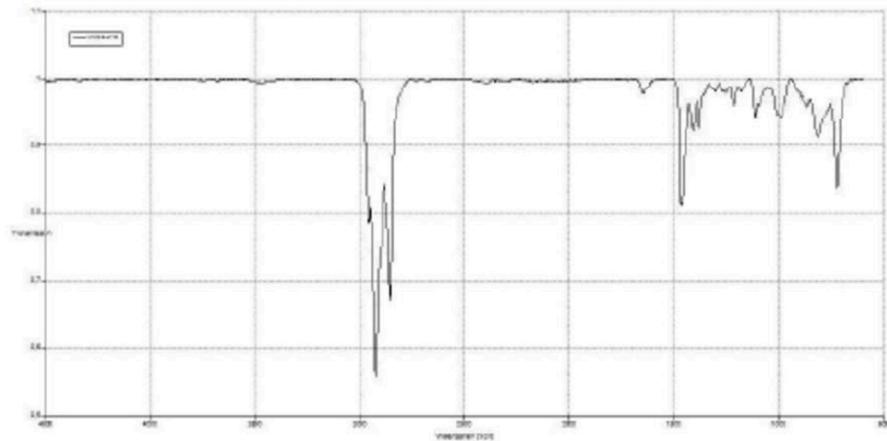
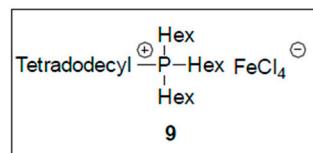
Figure S1. <sup>1</sup>H NMR and <sup>13</sup>C NMR spectra of 2,4-diphenylquinoline.



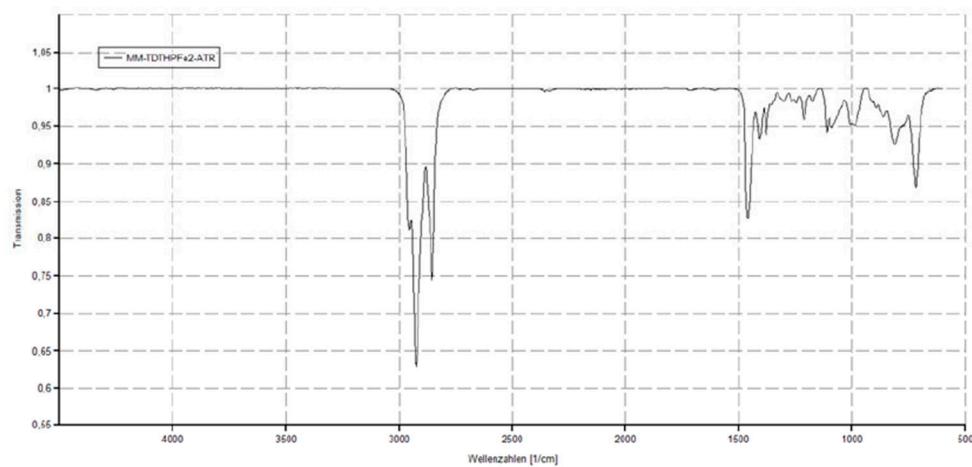
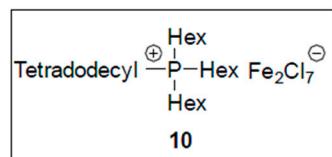
**Figure S2.** IR-spectrum of [TBP][FeCl<sub>4</sub>].



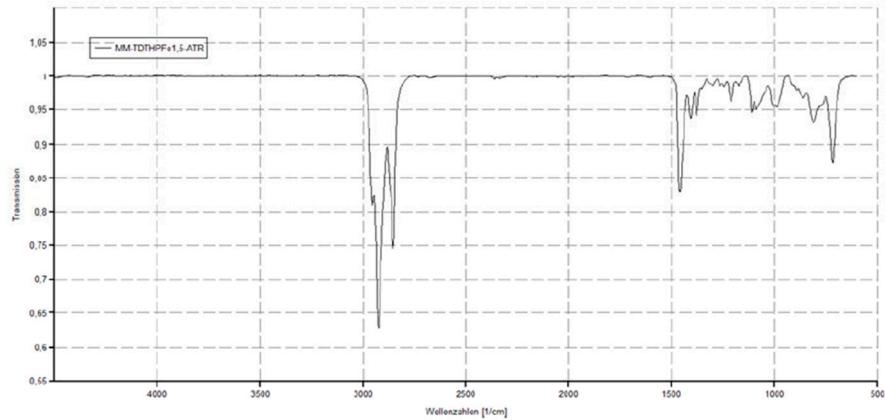
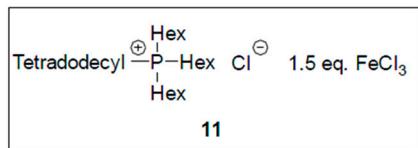
**Figure S3.** IR-spectrum of [TBP][Fe<sub>2</sub>Cl<sub>7</sub>].



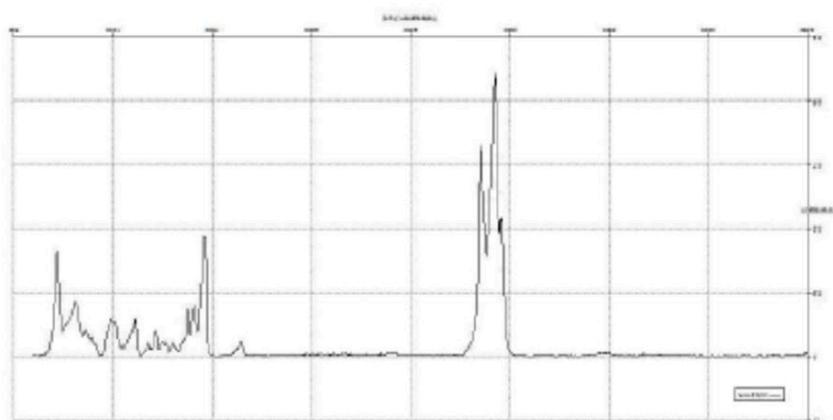
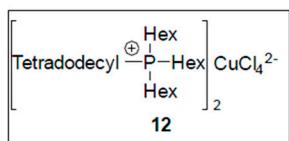
**Figure S4.** IR-spectrum of [THTDP][FeCl<sub>4</sub>].



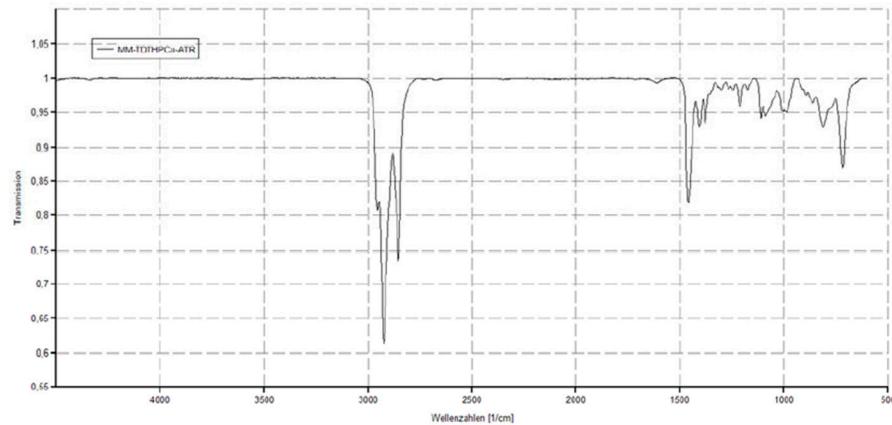
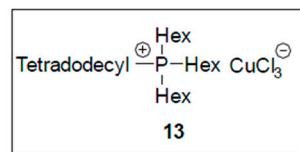
**Figure S5.** IR-spectrum of [THTDP][Fe<sub>2</sub>Cl<sub>7</sub>].



**Figure S6.** IR-spectrum of [THTDP]Cl/1.5  $\text{FeCl}_3$ .



**Figure S7.** IR-spectrum of  $[\text{THTDP}]_2[\text{CuCl}_4]$ .



**Figure S8.** IR-spectrum of [THTDP][CuCl<sub>3</sub>].