

Supporting Information

**Imidazolium-based ionic liquids decorated zinc porphyrin catalyst
for converting CO₂ into five-membered heterocyclic molecules**

Yaju Chen ^a, Rongchang Luo ^{a,*}, Zhi Yang ^a, Xiantai Zhou ^b and Hongbing Ji ^{a,*}

^a School of Chemistry, Key Laboratory of Low-Carbon Chemistry & Energy Conservation of Guangdong Province, Sun Yat-sen University, Guangzhou, 510275, China;

^b School of Chemical Engineering and Technology, Sun Yat-sen University, Zhuhai, Guangdong, 519082, China;

Figures

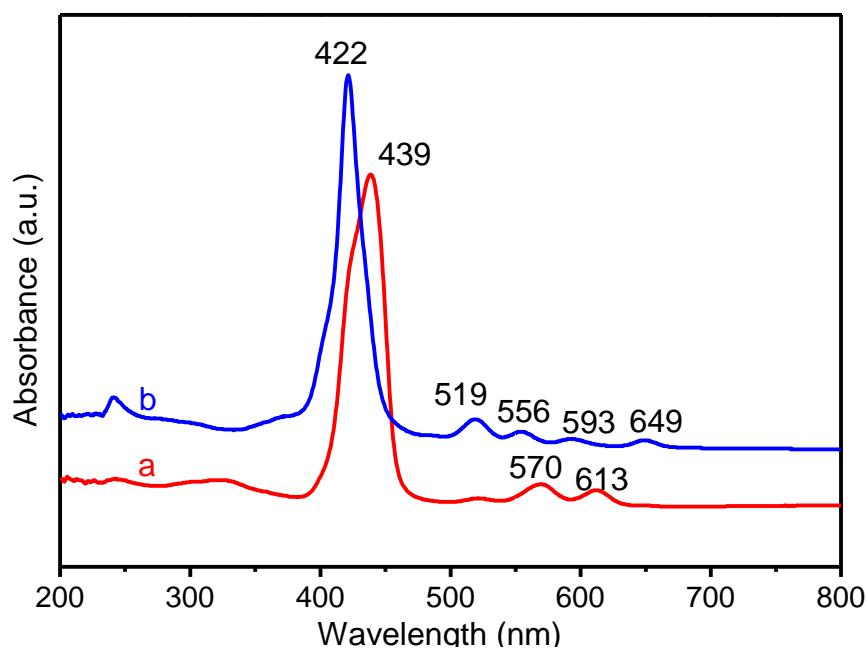


Figure S1. UV-Vis spectrum of the (a) **IL-TPP** and (b) **IL-ZnTPP**

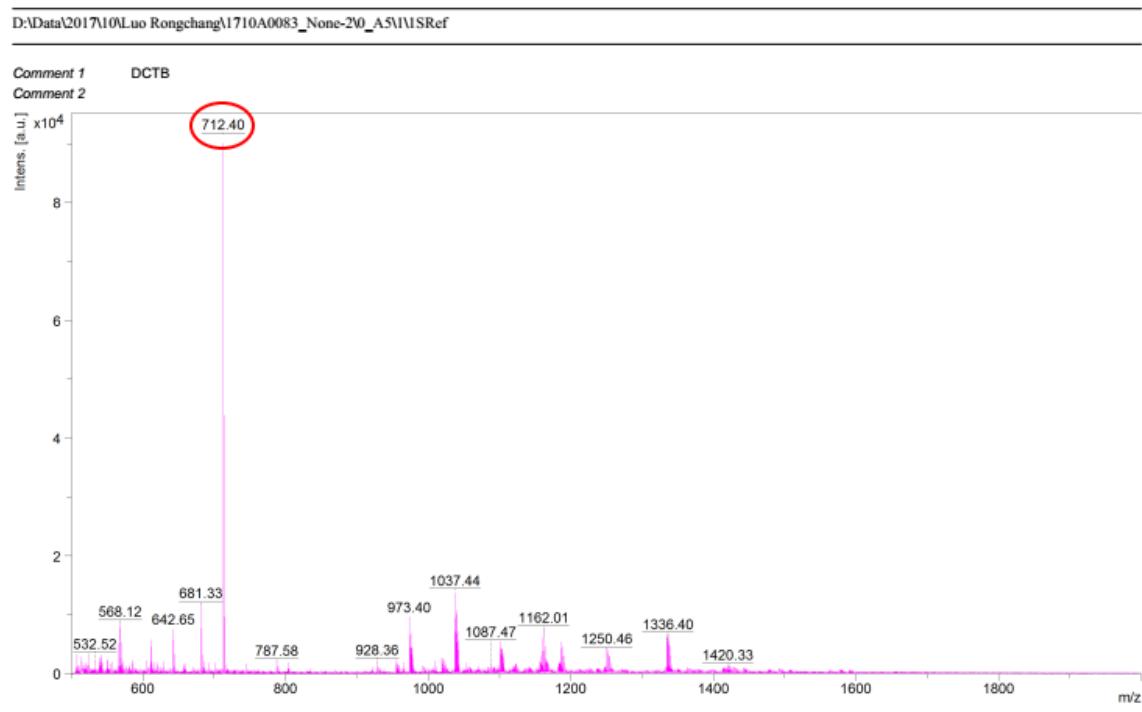


Figure S2. MALDI-TOF/MS spectrum of the **IL-ZnTPP**

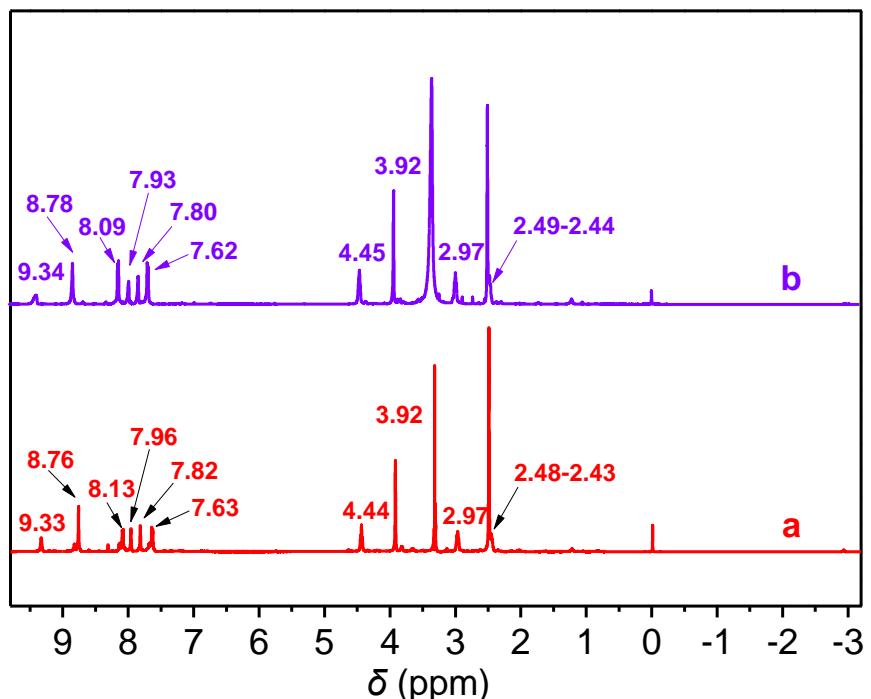


Figure S3. ^1H NMR spectra of the fresh (a) and recycled (b) **IL-ZnTPP**

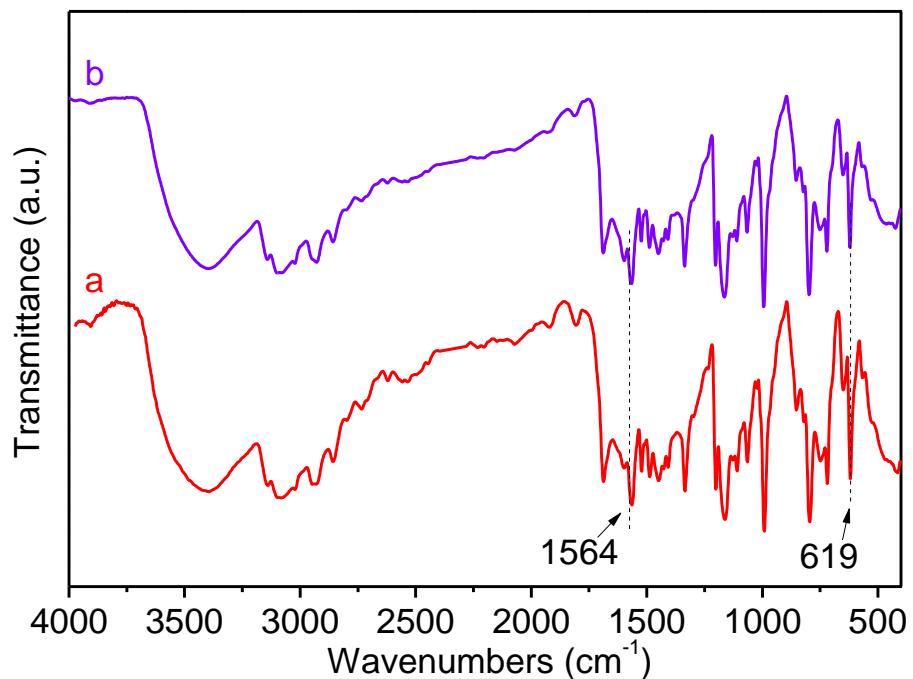
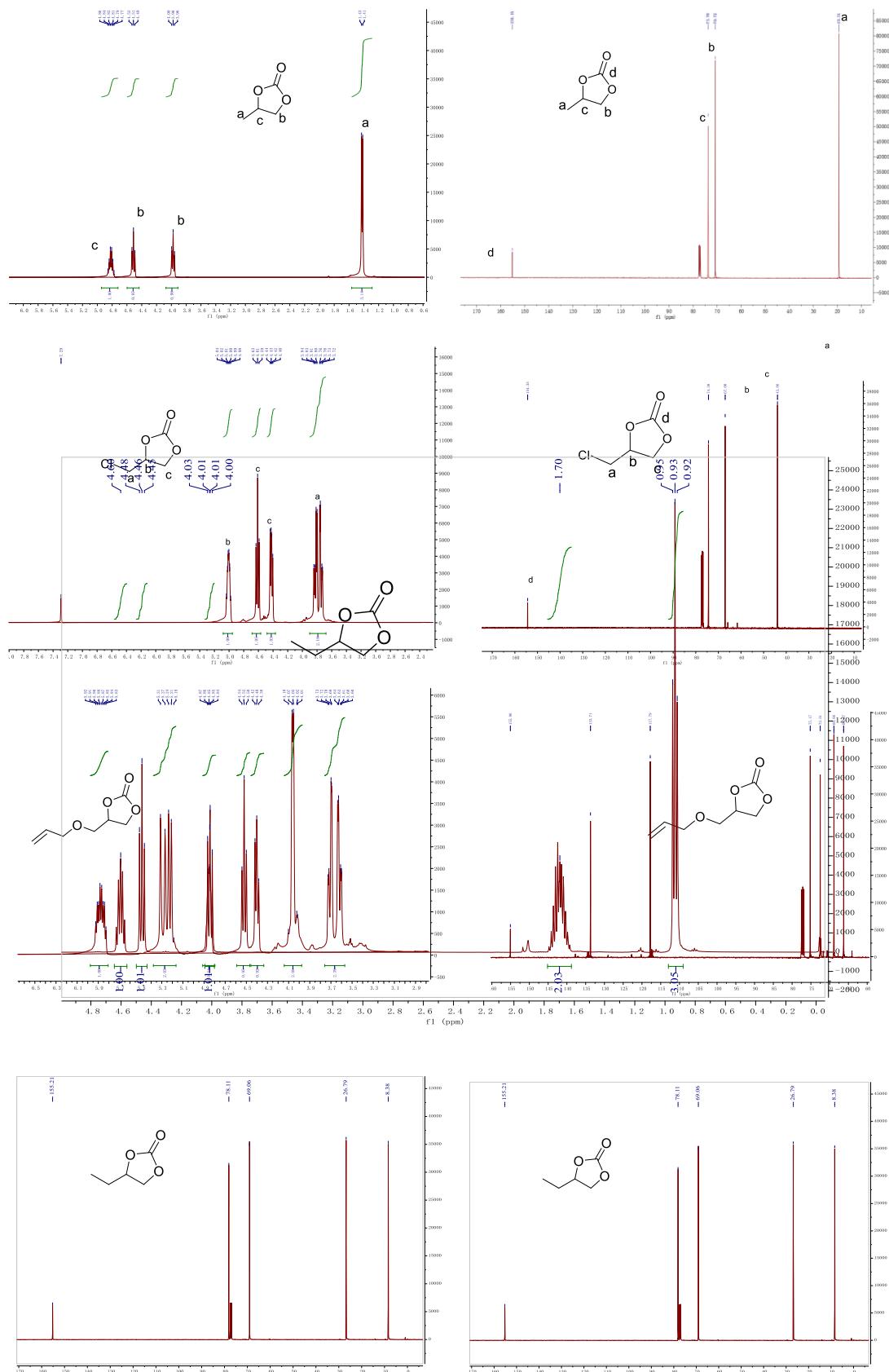
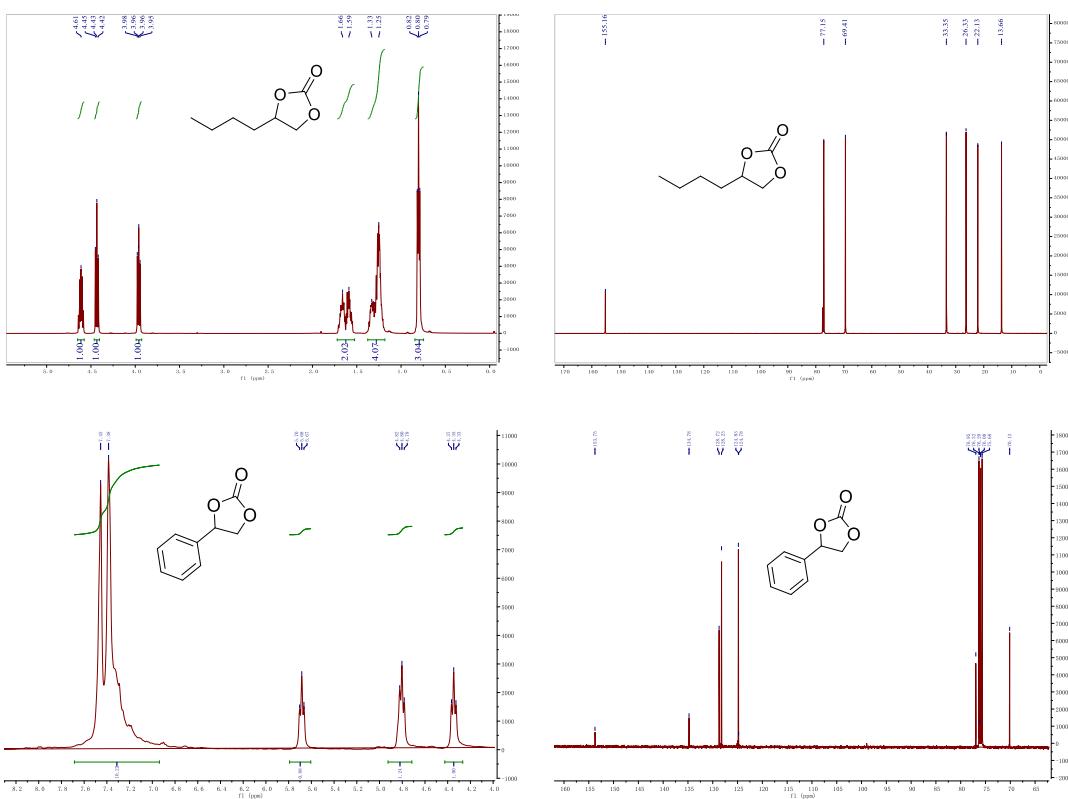


Figure S4. FTIR spectra of the fresh (a) and recycled (b) **IL-ZnTPP**

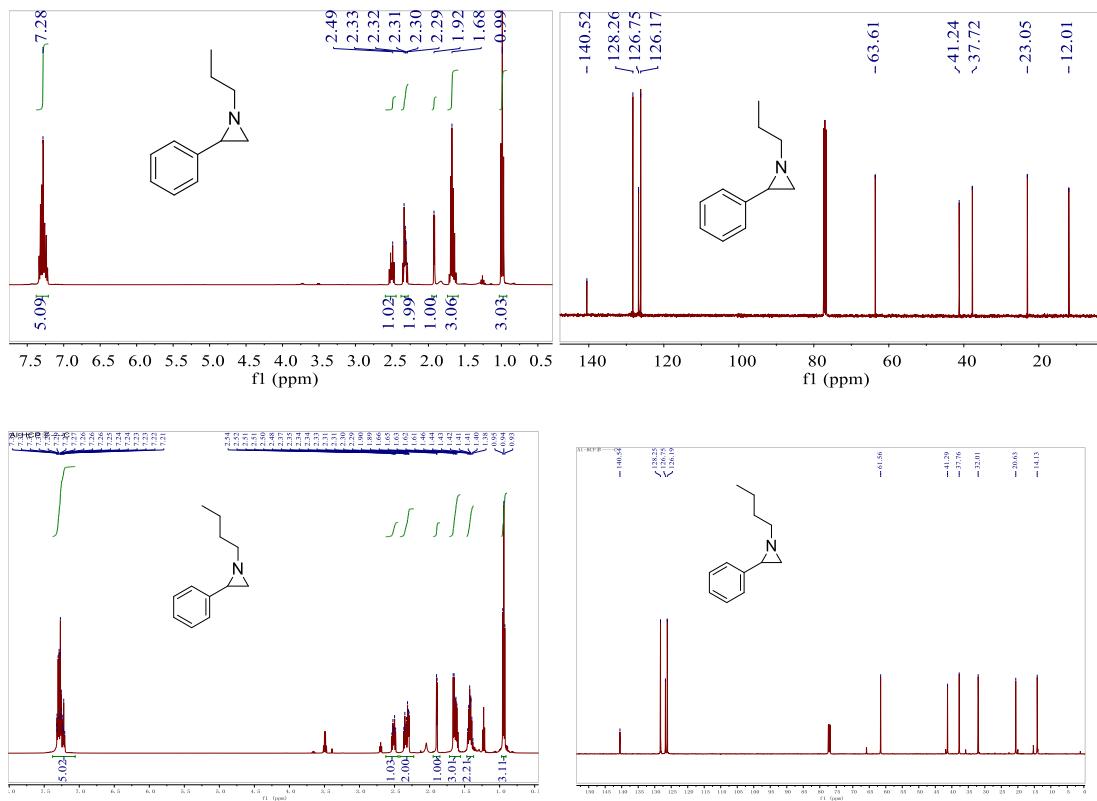
NMR Spectra

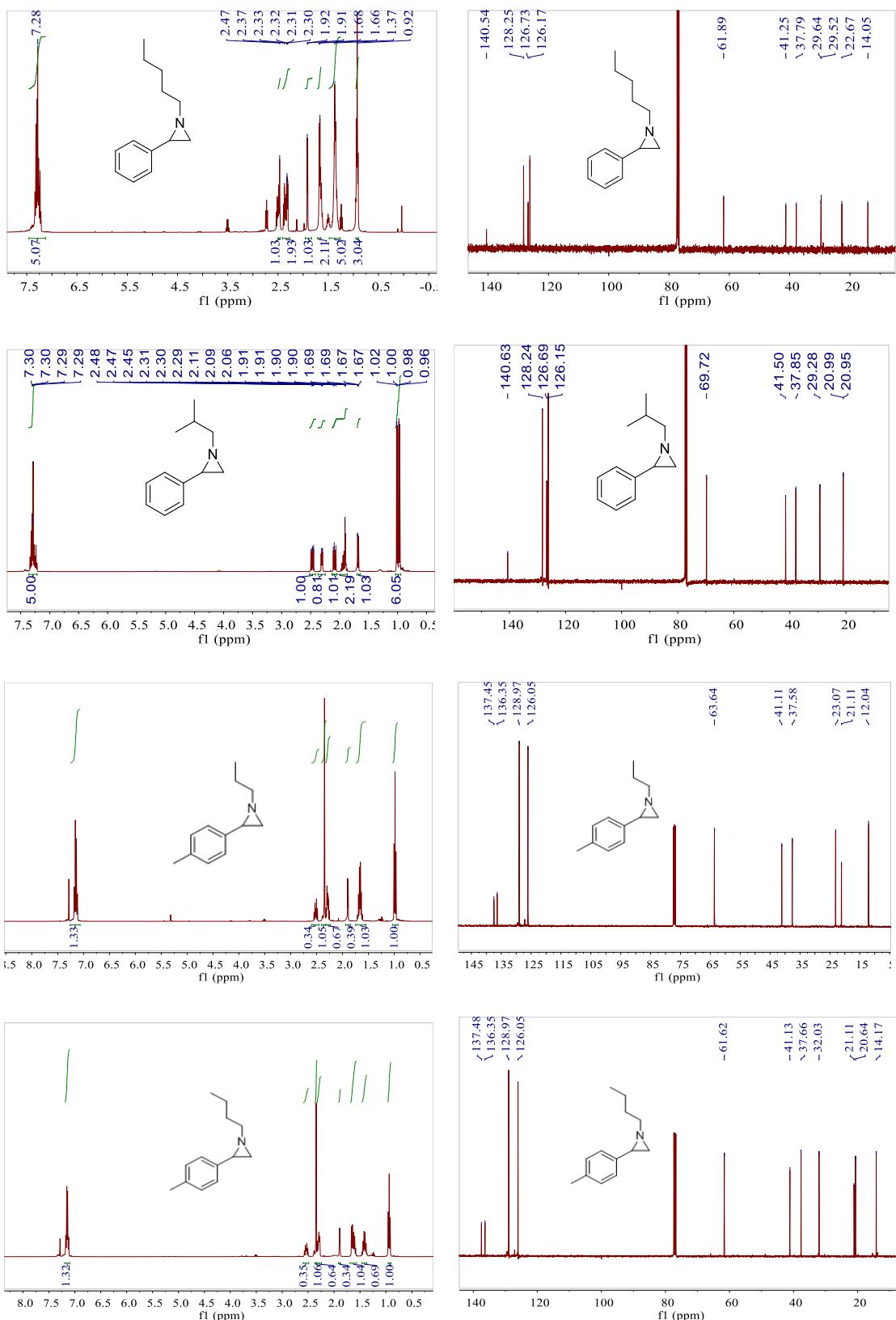
The ^1H NMR and ^{13}C NMR spectral copies of various synthesized cyclic carbonates:

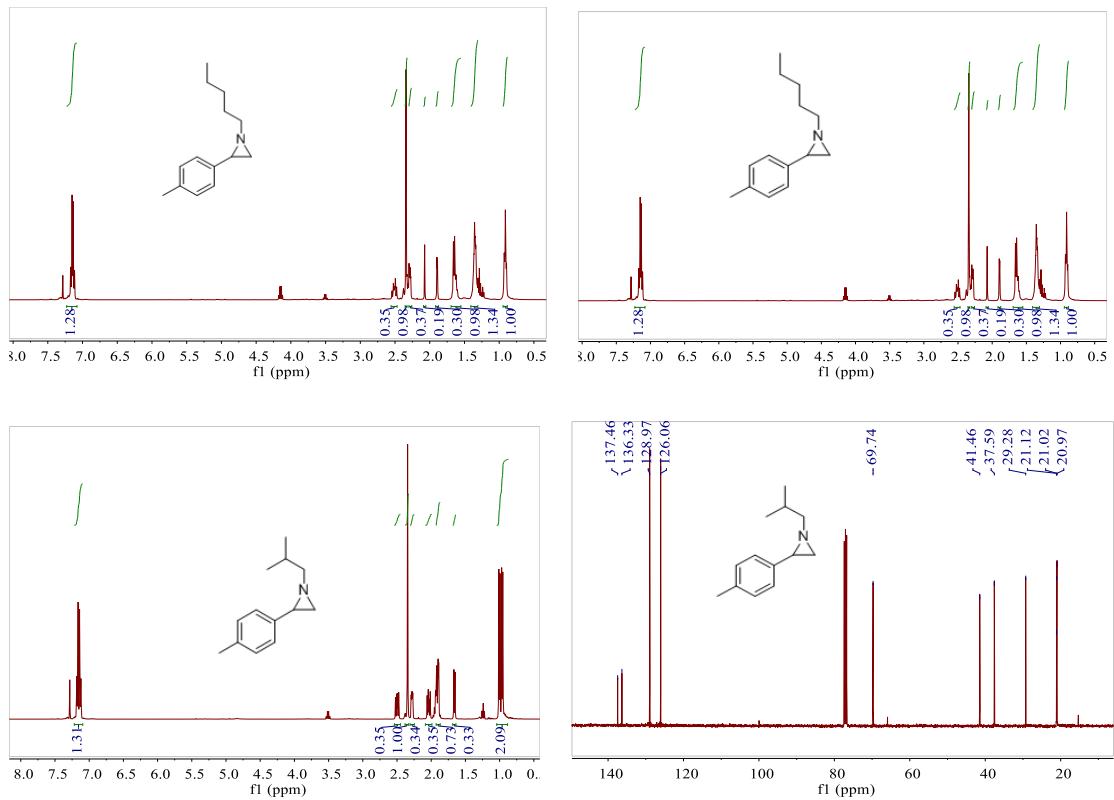




The ^1H NMR and ^{13}C NMR spectral copies of various synthesized aziridines:







The ^1H NMR and ^{13}C NMR spectral copies of various synthesized 5-substituted oxazolininones:

