

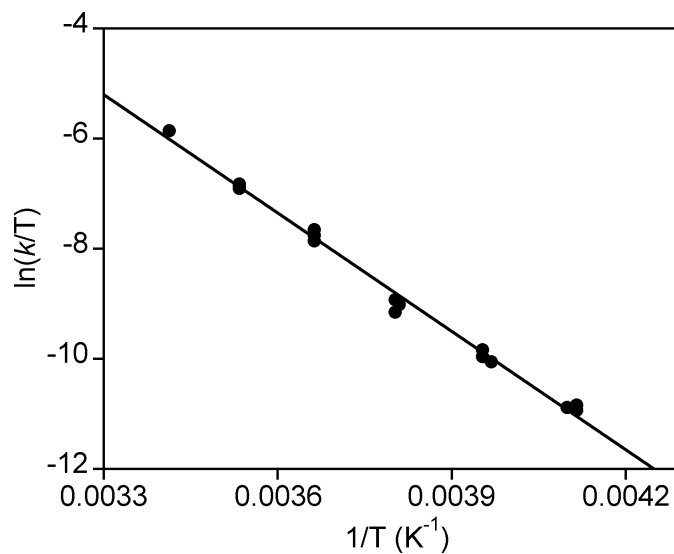
## Supporting Information

For

### **Mechanistic Studies on the Formation and Reactivity of Dioxygen Adducts of Diiron Complexes Supported by Sterically Hindered Carboxylates**

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**Figure S1.** Eyring plot for the decomposition of **2-Py** in the absence of added substrate. Derived activation parameters are listed in Table 1.

**Table S1.** Second order rate constants for the oxygenation of diferrous complexes determined at 233 K.

Complex	$k, \text{M}^{-1} \text{s}^{-1}$	$k, \text{M}^{-1} \text{s}^{-1}$
	(pseudo-first order conditions)	(second order conditions)
<b>1-Py</b>	$215 \pm 9$	$213 \pm 10$
<b>1-MeIm</b>	$303 \pm 17$	$293 \pm 10$
<b>1-THF</b>	$322 \pm 14$	$322 \pm 16$