Kinetics and mechanism of the Co(II)-assisted oxidation of thioureas by dioxygen

Evgeny V. Kudrik, Alexander Theodoridis, Rudi van Eldik and Sergei V. Makarov

Supporting Information

Legends for Figures

Figure S1. Plot of ln $k_{obs1}$ vs. pressure. Experimental conditions: 0.1 M TRIS buffer, pH = 7.0, 25.0 °C, [Co$^{II}$\{PyzPz(PhSO$_3$)$_8$\}(H$_2$O)$_2$]$^{8-}$ = $1.46 \times 10^{-5}$ M, [DMTU] = 0.2 M

Figure S2. Eyring plot for the reaction of 3' with O$_2$. Experimental conditions: 0.1 M TRIS buffer, pH = 7.0, [Co$^{II}$\{PyzPz(PhSO$_3$)$_8$\}(H$_2$O)$_2$]$^{8-}$ = $2.1 \times 10^{-6}$ M.

Figure S3. Eyring plot for reaction of 2 with OH$. Experimental conditions: KOH, pH = 13, 25.0 °C, [Co$^{II}$\{PyzPz(PhSO$_3$)$_8$\}(H$_2$O)$_2$]$^{8-}$ = $1.46 \times 10^{-5}$ M.

Figure S4. Plot of ln $k_{obs3}$ vs. pressure. Experimental conditions: 0.1 M TRIS buffer, pH 7.0, [Co$^{II}$\{PyzPz(PhSO$_3$)$_8$\}(H$_2$O)$_2$]$^{8-}$ = $1.46 \times 10^{-5}$ M, 25.0 °C.

Figure S5. pH titration curve for [Co$^{II}$\{PyzPz(PhSO$_3$)$_8$\}(H$_2$O)$_2$]$^{8-}$ (1.46 x 10^{-5} M), 25.0 °C.
Figure S1
Figure S2
Figure S3
Figure. S4
Figure S5