

## Electronic Supplementary Data

### Kinetic study of oxidation of nitrite with a metallo superoxide

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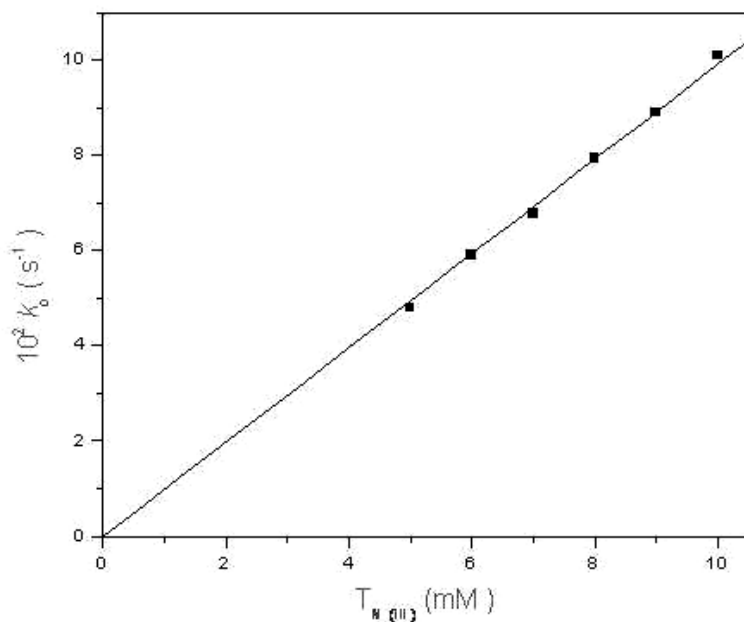


Fig. S1 – Variation of  $k_0$  with  $T_{N(III)}$ .  $[\mathbf{1}] = 0.50 \text{ mM}$ ,  $pH = 4.0$ ,  $T = 25.0 \text{ }^\circ\text{C}$ .

Table S1 – Stoichiometric results for the oxidation of nitrite by  $\mathbf{1}$  at  $pH = 4.0$

$[\mathbf{1}]$ (Mm)	$T_{N(III)}$ (mM)	Residual $T_{N(III)}$ (mM)	$\Delta[\mathbf{1}]/\Delta T_{N(III)}$
1.0	5.0	4.5	2.0
2.0	10.0	9.1	2.2
4.0	15.0	12.9	1.9

Table S2 – Variation of  $k_0$  with nitrite.  $[\mathbf{1}] = 0.5 \text{ mM}$ ,  $pH = 4.0$ ,  $T = 25.0 \text{ }^\circ\text{C}$

$T_{N(III)}$ (mM)	$10^2 k_0$ ( $s^{-1}$ )
5	4.8
6	5.9
7	6.8
8	7.9
9	8.9
10	10.1

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Table S3 – Variation of  $k_o$  with pH.  $[\mathbf{I}] = 0.5 \text{ mM}$ ,  $T_{\text{N(III)}} = 6\text{mM}$ ,  $T = 25.0 \text{ }^\circ\text{C}$

pH	$10^2 k_o \text{ (s}^{-1}\text{)}$
3.6	10.1
3.8	7.4
4.0	5.9
4.2	5.1
4.4	4.6
4.6	4.2
4.8	3.9

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Table S4 – Effect of D<sub>2</sub>O on  $k_o$ .  $[\mathbf{I}] = 0.5 \text{ mM}$ ,  $T_{\text{N(III)}} = 6\text{mM}$ ,  $pD = 4.4$ ,  $T = 25 \text{ }^\circ\text{C}$

% (v/v) of D <sub>2</sub> O	$10^2 k_o \text{ (s}^{-1}\text{)}$
92.5	2.1
75	2.6
50	3.4
30	4.0
0	4.6

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