No.	Compound name	Reaction equation	pH	Rate constant ($L\,mol^{-1}\,s^{-1}$)	Comments	Reference
4.1	Oxide radical ion	$O^{\cdot -} + O^{\cdot -} \longrightarrow {O_2}^{2-}$	13	8.4×10^9	p.r.; C.k.; obs. O_3^-; $[O^-] = 8.4 \times 10^{-8}$; most direct method but substantial amount of $O_2^{\cdot -}$ present by comparison with spectra in [82A133]; not reliable; rel. to $k(O^{\cdot -} + O_2)$.	660001
			> 12	$\leq 9 \times 10^8$	p.r.; C.k. with $Fe(CN)_6^{4-}$; est. based on numerous assumptions; $pK(^{\cdot}OH) = 11.9$. Not reliable.; rel. to $k(^{\cdot}OH + Fe(CN)_6^{4-})$.	660424
4.2		$O_2^{\cdot -} + O^{\cdot -} \rightarrow OH^- + OH^- + O_2$	13–14	6.0×10^8	p.r.; D.k. at 430 nm (O_3^-) as well as simultaneous buildup at 250 nm ($O_2^{\cdot -}$) and decay, in soln. satd. with 4×10^8 N m^{-2} N_2O and 0-1 $\times 10^6$ N m^{-2} O_2; computer simulation.	82A133