

No.	Compound name	Reaction equation	pH	Rate constant (L mol <sup>-1</sup> s <sup>-1</sup> )	Comments	Reference
133	Nitrite Ion	$\cdot\text{OH} + \text{NO}_2^- \longrightarrow \cdot\text{NO}_2 + \text{OH}^-$		$1.0 \times 10^{10}$	Average of 6 values.	
			acid	$1.1 \times 10^{10}$	p.r.; C.k. (condy.); rel. to $k'(\cdot\text{OH} + \text{MeOH})$ .	700254
			alk.	$9.1 \times 10^9$	p.r.; C.k. (condy.); rel. to $k'(\cdot\text{OH} + \text{MeOH})$ .	700254
			> 12	$1.4 \times 10^{10}$	f.p.; C.k.; obs. dependence of $\text{O}_3^-$ decay rate on $[\text{OH}^-]$ and $[\text{NO}_2^-]$ ; $k'(\cdot\text{OH} + \text{NO}_2^-)/k'(\cdot\text{O}^- + \text{NO}_2^-) = 40$ ; rel. to $k'(\cdot\text{O}^- + \text{O}_2) = 3.6 \times 10^9$ ; ratio = $4.0 \pm 0.4$ .	707264
			11	$8.0 \times 10^9$	p.r.; C.k.; calcd. from measurements at pH 11 and 13; rel. to $k'(\cdot\text{OH} + \text{CO}_3^{2-})$ .	690379
			10.7	$7.0 \times 10^9$	p.r.; C.k.; rel. to $k'(\cdot\text{OH} + \text{CO}_3^{2-})$ .	650190
				$1.2 \times 10^{10}$	p.r.; C.k. in $\text{O}_2$ -satd. soln. contg. $0.04 \text{ mol L}^{-1} \text{Na}_2\text{CO}_3^{--}$ ; rel. to $k'(\cdot\text{OH} + \text{CO}_3^{2-})$ .	640131