No.	Compound name	Reaction equation	рН	Rate constant $(L  \text{mol}^{-1}  \text{s}^{-1})$	Comments	Reference
101	Azide Ion	$H^{\bullet} + N_3^{-} \longrightarrow HN_3^{\bullet}$		$2.9 \times 10^{9}$	Average of 4 values.	
			0.7	$1.9 \times 10^9$	p.r.; esr; D.k. of H signal in soln. contg. $0.5 \text{ mol L}^{-1}$ phosphate and $10^{-2} \text{ mol L}^{-1}$ tert-BuOH.	80A331
			6.7	$\sim 2.4 \times 10^9$	p.r.; C.k. in soln. contg. 0.5 mol $L^{-1}$ phosphate, $1 \times 10^{-4}$ mol $L^{-1}$ tert-BuOH, $5 \times 10^{-4}$ mol $L^{-1}$ phenol and $10^{-4}$ - $10^{-3}$ mol $L^{-1}$ azide; rel. to $k(H^{\bullet} + C_6H_5OH)$ .	86A331
			$\sim 7$	$4.0 \times 10^9$	$\gamma$ -r.; C.k.; obs. G(H <sub>2</sub> ) in Ar-satd. soln. contg. $5 \times 10^{-4}$ mol L <sup>-1</sup> NO <sub>3</sub> <sup>-</sup> , $10^{-3}$ mol L <sup>-1</sup> N <sub>3</sub> <sup>-</sup> and 0.5 to 5 mol L <sup>-1</sup> 2-PrOH; rel. to $k(H^{\bullet} + 2\text{-PrOH})$ .	710007
				$3.3 \times 10^{9}$	$\gamma$ -r.; C.k.; rel. to $k(H^{\bullet} + EtOH)$ .	680010