

No.	Compound name	Reaction equation	pH	Rate constant (L mol <sup>-1</sup> s <sup>-1</sup> )	Comments	Reference
78	Iron(III) Ion	$\text{H}^\bullet + \text{Fe}^{3+} \longrightarrow \text{H}^+ + \text{Fe}^{2+}$	$\sim 1\text{--}2$	$< 2 \times 10^6$	$\gamma$ -r.; C.k. in HClO <sub>4</sub> soln.; $k(\text{H}^\bullet + \text{FeOH}^{2+}) \gg 500$ $k(\text{H}^\bullet + \text{Fe}^{3+})$ detd. from pH study; rel. to $k(\text{H}^\bullet + \text{MeOH})$ .	680444
				0.3	$< 7.5 \times 10^5$	e.d.; C.k. in 1