

No.	Compound name	Reaction equation	pH	Rate constant (L mol <sup>-1</sup> s <sup>-1</sup> )	Comments	Reference
418	Sulfur hexafluoride	$\text{e}_{\text{aq}}^- + \text{SF}_6 \longrightarrow \text{SF}_5^\bullet + \text{F}^-$	$\sim 7$	$1.6 \times 10^{10}$	p.r.; D.k. in Ar-satd. soln.; overall reaction consists of fast steps $\rightarrow \text{SF}_5 + \text{F}^-$ , $\text{SF}_5 + 2\text{H}_2\text{O} \rightarrow \text{OH} + \text{SF}_4 + \text{F}^- + \text{H}_3\text{O}^+$ , followed by slow hydrolysis: $\text{SF}_4 + 9\text{H}_2\text{O} \rightarrow \text{SO}_3^{2-} + 4\text{F}^- + 6\text{H}_3\text{O}^+$ [700107].	680159