No.	Compound name	Reaction equation	pH	Rate constant $(\text{L mol}^{-1}\,\text{s}^{-1})$	Comments	Reference
140	Tris(2,2'-bipyridine)ruthenium(II) ion	$\text{H}^\cdot + \text{Ru(bpy)}_3{}^{2+} \longrightarrow \text{Ru(bpy)}_2(\text{bpyH})^{2+}$	~ 2	9.5×10^9	p.r.; P.b.k. at 420 nm; product suggested to be H adduct on ligand ($\varepsilon_{420} = 18{,}000$ L mol^{-1} cm^{-1}).	720381