ERRATUM

KINETICS AND MECHANISM OF *P*-XYLENE OXIDATION BY CE(IV) IN AQUEOUS ACID MEDIUM. LFER AS AN ARGUMENT TO THE OXIDATION MECHANISM

GABRIELA-CRISTINA BUCŞA AND IOAN BÂLDEA

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Some errors were discovered in the article mentioned concerning the mechanism of the title reaction (p.165) and the rate law from the mechanism (eqn. 13). The correct mechanism and rate law are as follows:

$$Ce^{4+} + H_2O \iff CeOH^{3+} + H^+ \qquad \qquad k_1, k_{-1}, \quad K_h$$

$$Ce(OH)^{3+} + CH_3C_6H_4CH_3 \iff Adduct^{3+} \qquad k_2, k_{-2}, \quad K_f$$

$$Adduct^{3+} + H^+ \xrightarrow{r.d.s.} [CH_3C_6H_4(H)CH_2^{\circ}]^+ + Ce^{3+} + H_2O \qquad k_3$$

$$[CH_3C_6H_4(H)CH_2^{\circ}]^+ + Ce(OH)^{3+} \xrightarrow{fast} Ce^{3+} + CH_3C_6H_4CH_2^+H_2O$$

$$CH_3C_6H_4CH_2^+ + H_2O \xrightarrow{fast} CH_3C_6H_4CH_2OH + H^+$$

$$r = \frac{d[Ce(IV)]_t}{d_t} = \frac{k_3K_2[p - xylene][H^+]}{1 + K_2[p - xylene]}[Ce(IV)]_t \quad (13)$$

The rate law has the same form as the published one and the conclusions remain the same.