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exchange current

of an electrode reaction

The common value I_0 of the anodic and cathodic partial currents when the reaction is at equilibrium

$$I = I_a = -I_c$$

For an electrode at equilibrium at which only one reaction is significant $I = 0$. When more than one reaction is significant at a given electrode, subscripts to I_0 may be used to distinguish exchange currents. I is not usually zero when only one of these reactions is at equilibrium.

Source:
PAC, 1974, *37*, 499 *(Electrochemical nomenclature)* on page 513

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