

## heterogeneous diffusion rate constant

*in electrochemistry*

Defined by the equation:

$$k_d = \frac{I_1}{n F c A}$$

where the limiting current  $I_1$  is assumed to be due to the diffusion species of concentration  $c$  and of diffusion coefficient  $D$ .  $n$  is the charge number of the cell reaction written so that the stoichiometric coefficient of this species is unity.  $A$  is usually taken as the geometric area of the electrode, and  $F$  is the Faraday constant.

**Source:**

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