

double-layer current

The non-faradaic current associated with the charging of the *electrical double layer* at an electrode-solution interface, given by:

$$i_{DL} = d(\sigma A)/dt$$

where σ = surface charge density of the double layer, A = area of the electrode-solution interface, and t = time.

Capital letters should be used as subscripts to avoid the possibility of confusing this symbol with that for the limiting diffusion current.

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