

Fast redox switching into the conducting state, related to single mono-cationic/polaronic charge carriers only in cation exchanger type conducting polymers

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Abstract

Simultaneously performed in situ conductance and spectro-electrochemical measurements - completed by EQCN - proved that fast redox switching can only be expected in cation exchanger type polymers, where the conductance develops promptly with the formation of mono-cationic/polaronic charge carriers - due assumingly to the presence of the charge compensating anions in favourable distribution.

Keywords: conducting polymers, UV-Vis-NIR, a. c. conductance, EQCN, redox mechanism