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Heterogeneous electron transfer at Au/SAM junctions in a room-temperature ionic liquid under pressure †

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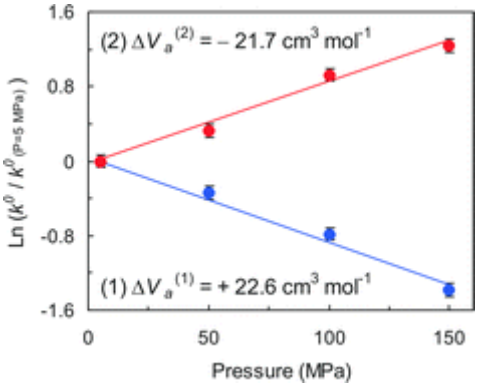
Abstract

Proven electrochemical approaches were applied to study heterogeneous electron transfer (ET) between selected redox couples and gold electrodes modified with alkanethiol self-assembled monolayers (SAMs), using the room-temperature ionic liquid (RTIL) [bmim][NTf_2] as reaction medium; ferrocene as freely diffusing redox probe in the RTIL was tested for ET through both thin (butanethiol) and thick (dodecanethiol) assemblages at pressures up to 150 MPa; well behaved kinetic patterns and reproducibility of data were demonstrated for ET within the unique Au/SAM/RTIL arrays.



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