

Supporting Information for

Determination of Water in Room Temperature Ionic Liquids by Cathodic Stripping Voltammetry at a Gold Electrode

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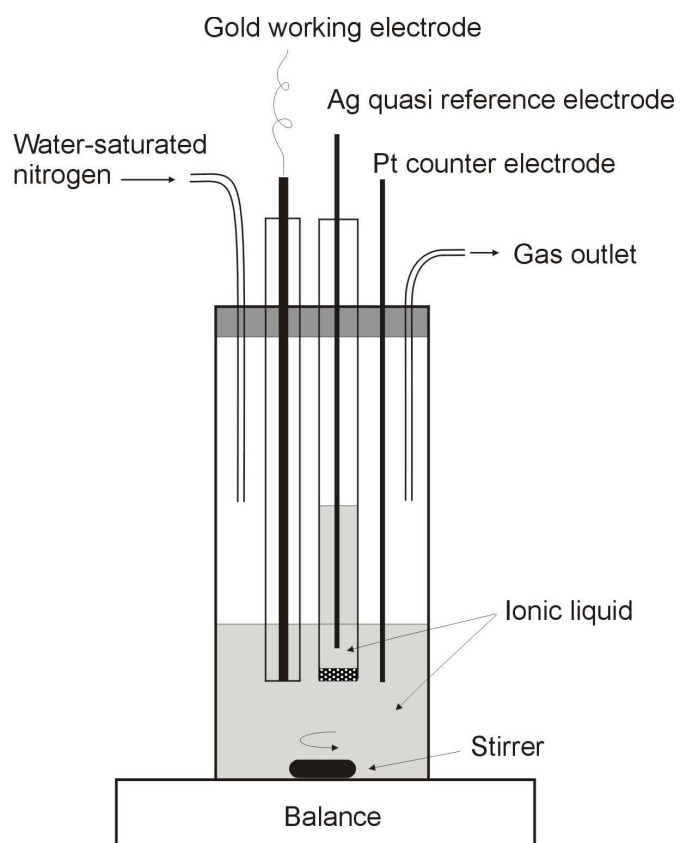


Figure S1 Cross section schematic representation of the electrochemical cell used for the determination of water in ionic liquids.

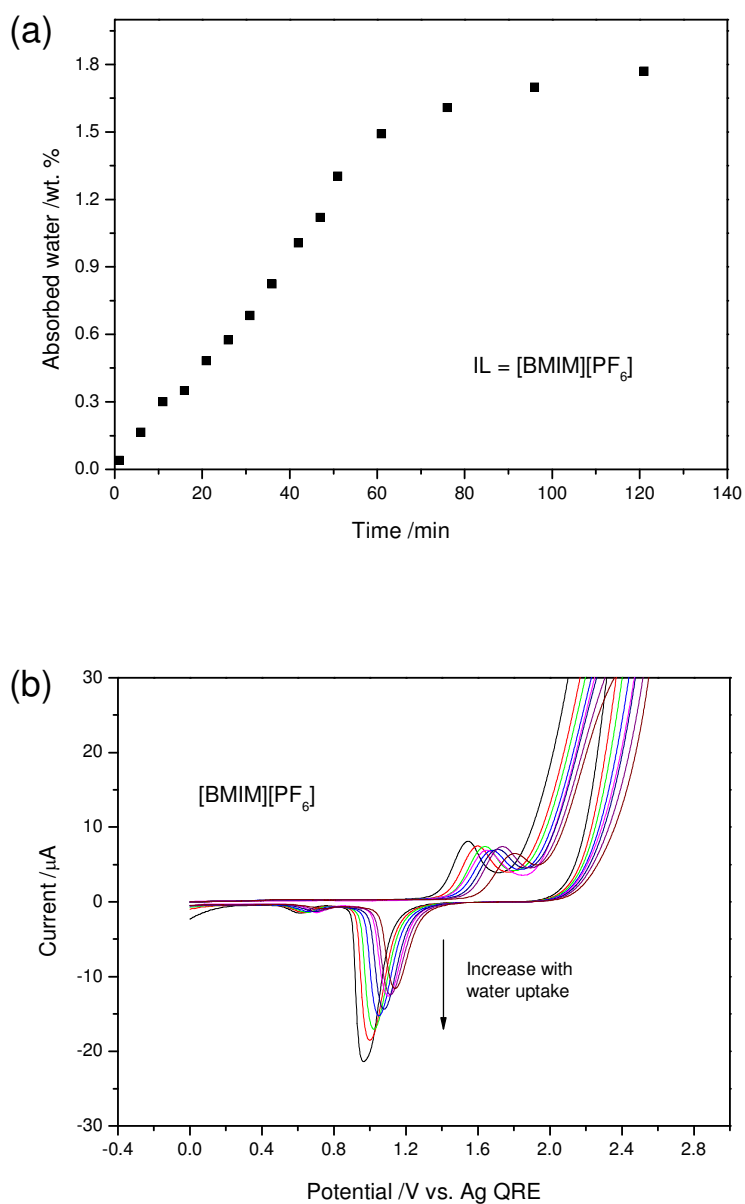


Figure S2 (a) Absorption of water into the hydrophobic aprotic ionic liquids [BMIM][PF₆] from a water-saturated nitrogen gas phase and (b) cyclic voltammograms recorded at a scan rate of 0.1 V s⁻¹ at a gold electrode showing the decrease in anodic potential limit growth of surface oxide with increasing water concentration.

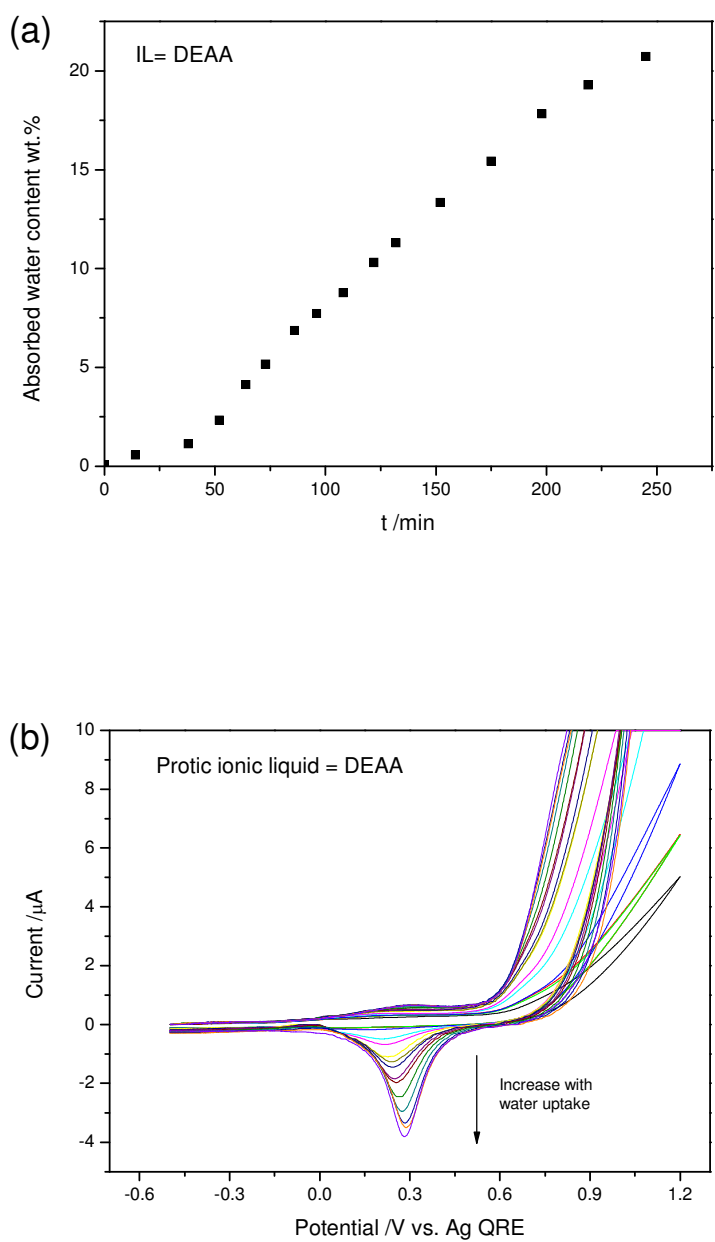


Figure S3 (a) Absorption of water into the protic ionic liquid [DEA][Ac] from a water-saturated nitrogen gas phase. (b) Cyclic voltammograms recorded at a scan rate of 0.1 V s^{-1} at a gold electrode showing the decrease in anodic potential limit growth of surface oxide with increasing water concentration.

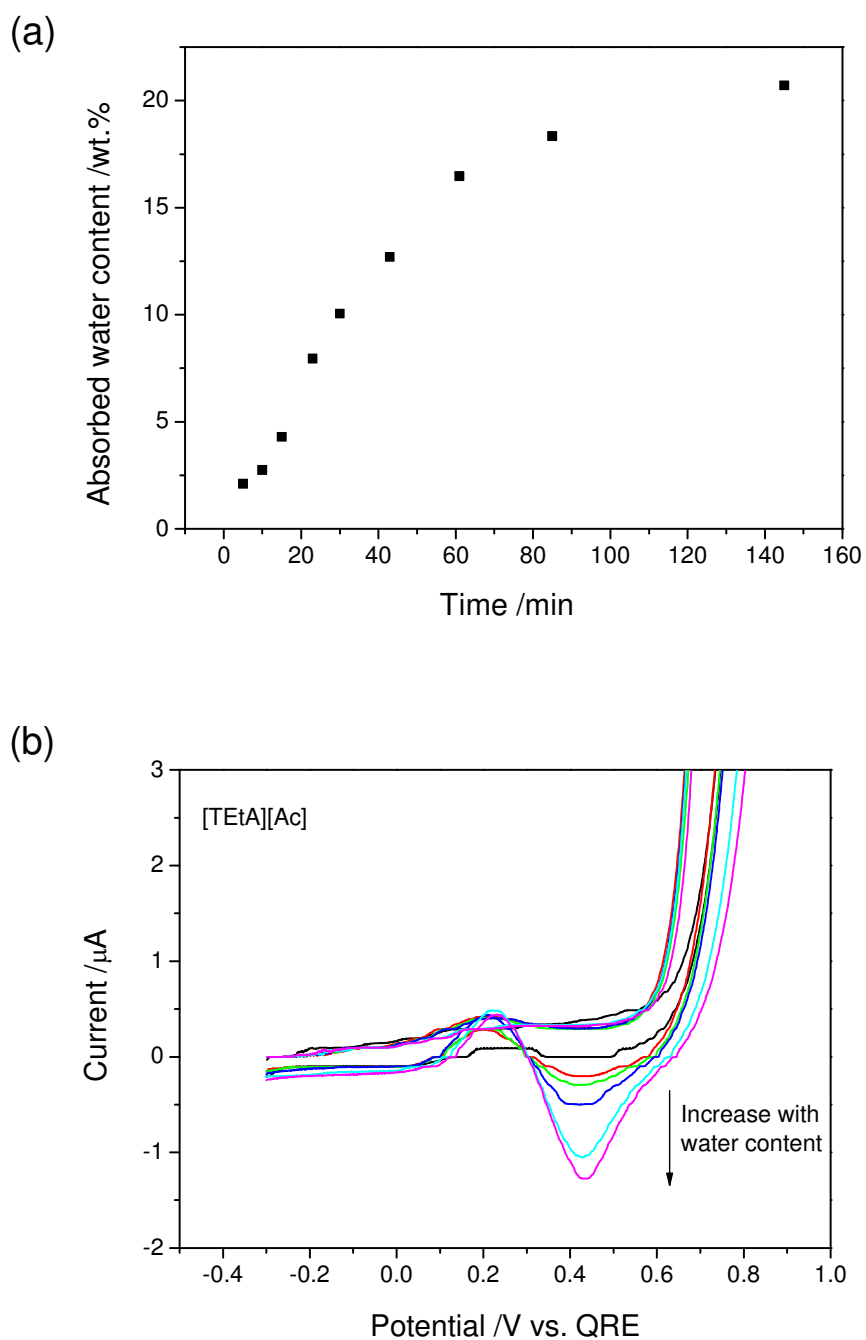


Figure S4 Absorption of water into the protic ionic liquid [TtEtA][Ac] from a water-saturated nitrogen gas phase. (b) Cyclic voltammograms recorded at a scan rate of 0.1 V s^{-1} at a gold electrode showing the decrease in anodic potential limit growth of surface oxide with increasing water concentration.

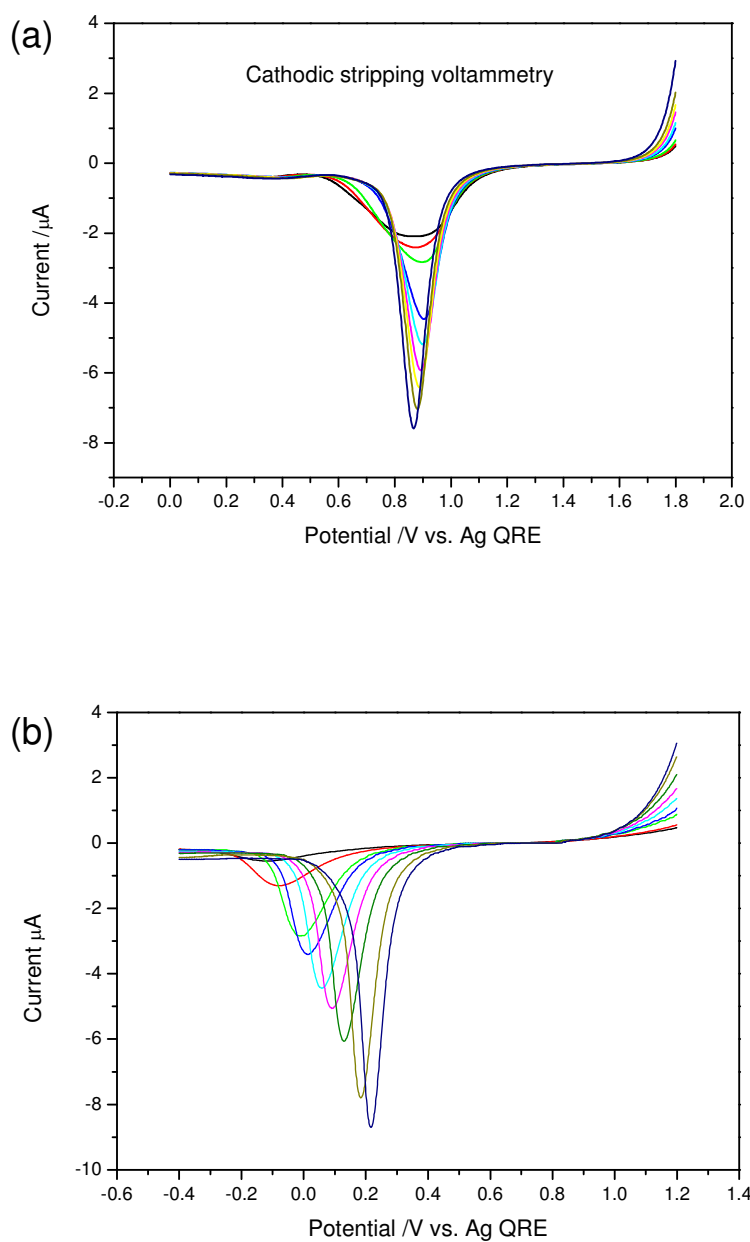


Figure S5 Cathodic linear sweep stripping voltammograms obtained at gold electrode in (a) [BMIM][BF₄] and (b) [DEA][Ac] with increasing water content. The experimental parameters for (a) are: polarization potential 1.8 V, polarization time 5 s, rest period 5 s, scan rate 100 mV s⁻¹; and for (b) are: polarization potential 1.2 V, polarization time 120 s, rest period 5 s, scan rate 100 mV s⁻¹.