# Supporting Information

## Helicity: a non-conventional stereogenic element for designing inherently chiral ionic liquids for electrochemical enantiodifferentiation.

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### SI.1 Electrochemical characterizations

*Compound **1***.

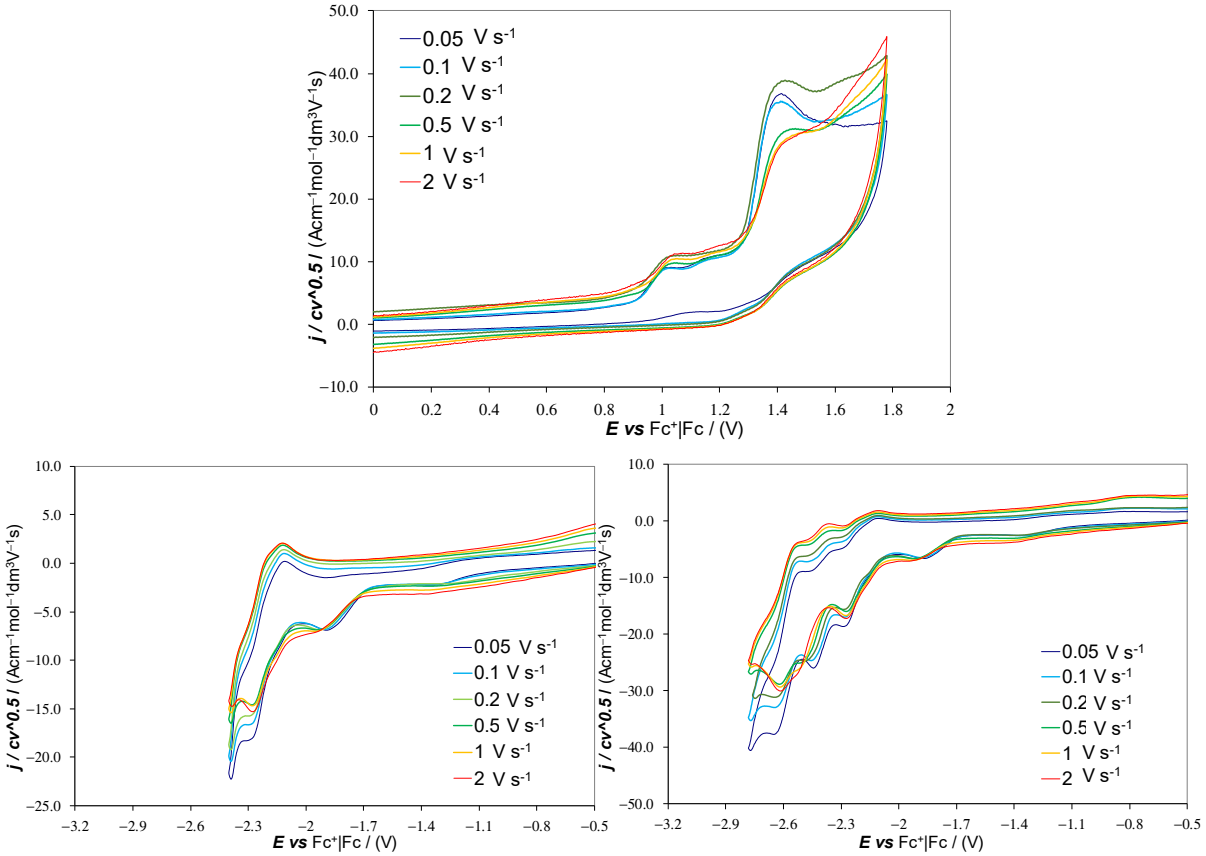


**Figure S.1.** Normalized CV patterns of compound **1** (0.00075 M) at scan rates in the 0.02-2 V/s range, in acetonitrile, with 0.1 M $TBAPF_6$ as supporting electrolyte, applying ohmic drop compensation by the positive feedback method and referring the potentials to the $Fc^+|Fc$ redox couple (the intersolvental standard recommended by IUPAC) measured in the same conditions (~0.39 V *vs* SCE).

*Compound **2**.*

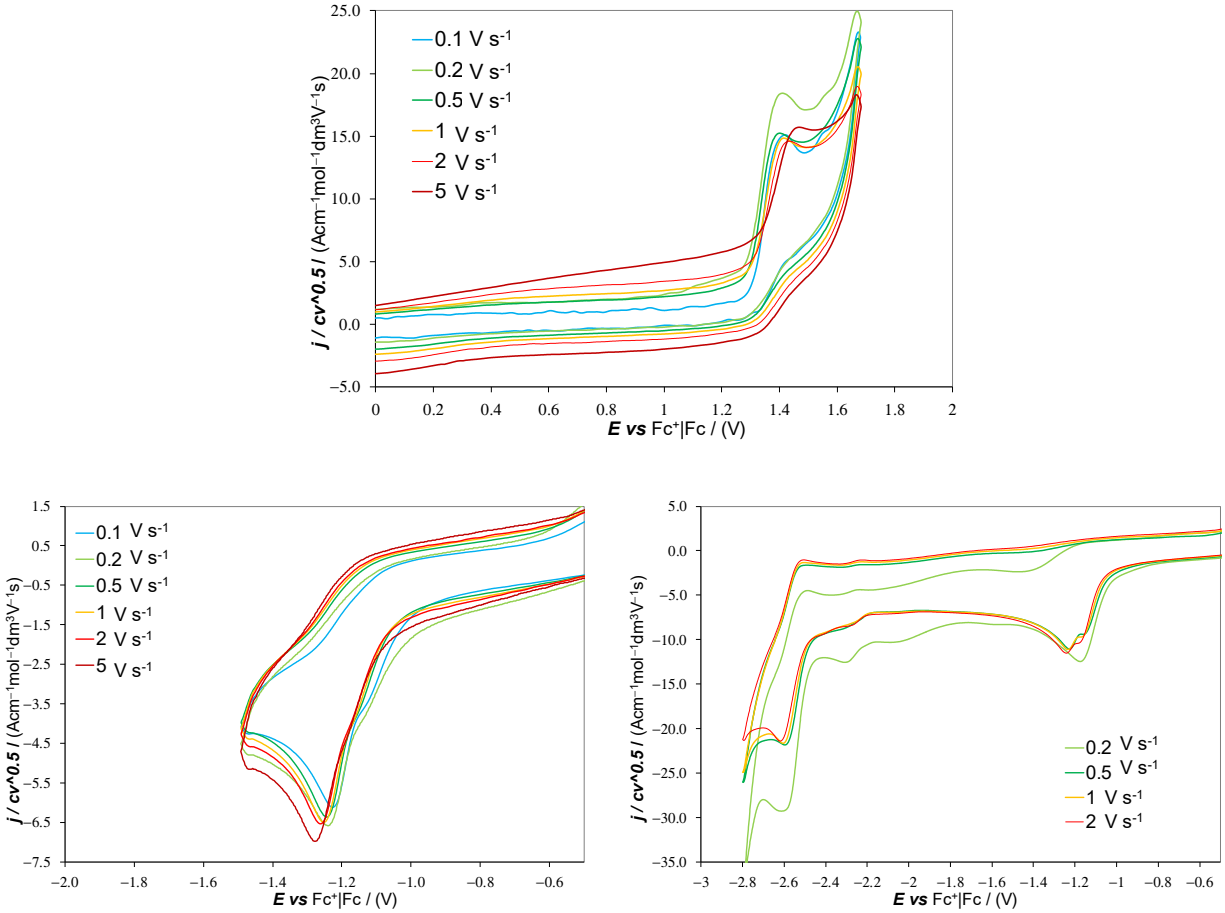


**Figure S.2** Normalized CV pattern of compound **2** (0.00075 M) at scan rates in the 0.02-2 V/s range, in acetonitrile, with 0.1 M $TBAPF_6$ as supporting electrolyte, applying ohmic drop compensation by the positive feedback method and referring the potentials to the $Fc^+|Fc$ redox couple (the intersolvental standard recommended by IUPAC) measured in the same conditions (~ 0.39 V *vs* SCE).

## SI.1.1 First reduction peak of compound 2

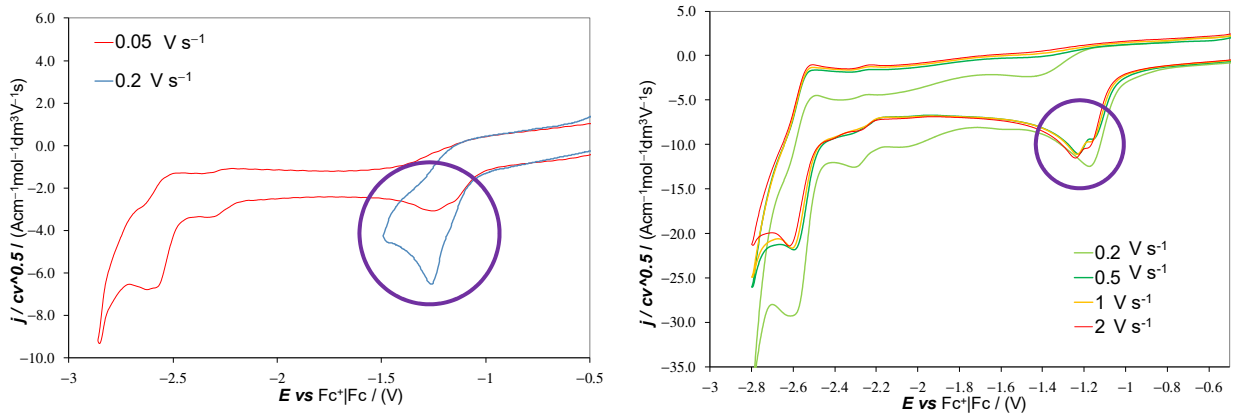


**Figure S.3.** The first reduction peak of **2** tending to split or to feature a preceding shoulder, confirmed in two experiments at different times and different scan rates.