Supplementary information

Combination of organic cation and cyclic sulfonylamide anion exhibiting plastic crystalline behavior in a wide temperature range

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Figure S1. $^{19}$F NMR spectrum of [N$_{1111}$][CPFSA] in CD$_3$OD at −80 °C.
Figure S2. XRD patterns of the obtained compounds measured at room temperature. (a) [N1111][CPFSA], (b) [N1112][CPFSA], (c) [N1122][CPFSA], (d) [N1222][CPFSA], (e) [N2222][CPFSA], (f) [Pyr11][CPFSA], (g) [Pyr12][CPFSA].
Figure S3. DSC curves of the obtained OIPCs. (a) [N_{1111}][CPFSA], (b) [N_{2222}][CPFSA].
Figure S4. Solid state ionic conductivities of [N\textsubscript{1122}][CPFSA] (solid circle) as a function of temperature from 50 to 290 °C.