Description of Additional Supplementary Files

Supplementary Data 1: Optimized configuration used in density functional theory (DFT) calculation for PVDF

Supplementary Data 2: Optimized configuration used in density functional theory (DFT) calculation for c-CNF

Supplementary Data 3: Atomic coordinates of the Al_2O_3 slab model used for interaction energy calculation.

Supplementary Data 4: Atomic coordinates of the PVDF slab model used for interaction energy calculation.

Supplementary Data 5: Atomic coordinates of the b-CNF slab model used for interaction energy calculation.

Supplementary Data 6: Atomic coordinates of the c-CNF slab model used for interaction energy calculation.

Supplementary Data 7: Atomic coordinates of the Al_2O_3–PVDF slab model used for interaction energy calculation.

Supplementary Data 8: Atomic coordinates of the Al_2O_3–b-CNF slab model used for interaction energy calculation.

Supplementary Data 9: Atomic coordinates of the Al_2O_3–c-CNF slab model used for interaction energy calculation.

Supplementary Data 10: Optimized configuration used in density functional theory (DFT) calculation for $TFSI^-$

Supplementary Data 11: Optimized configuration used in density functional theory (DFT) calculation for PF_6^-

Supplementary Data 12: Optimized configuration used in density functional theory (DFT) calculation for Cl^-

Supplementary Data 13: Initial configuration used in molecular dynamics (MD) simulation for the PVDF system.

Supplementary Data 14: Final configuration used in molecular dynamics (MD) simulation for the PVDF system.

Supplementary Data 15: Initial configuration used in molecular dynamics (MD) simulation for the c-CNF system.

Supplementary Data 16: Final configuration used in molecular dynamics (MD) simulation for the c-CNF system.