Supplementary material (ESI) for Dalton Transactions

Inclusion and Dielectric Properties of a Vinylidene Fluoride Oligomer in Coordination Nanochannels

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Figure S1. $^{19}$F NMR spectra of (a) the neat OVDF and (b) the OVDF isolated from $1 \supset$ OVDF in acetone- $d_6$. $^1$H NMR spectra of (c) the neat OVDF and (d) the OVDF isolated from $1 \supset$ OVDF in acetone- $d_6$. The peaks at asterisks are attributable to the defects of head-to-head VDF units. The composite $1 \supset$ OVDF was stirred in 0.05 M aqueous solution of Na$_2$EDTA for a period of 1 day for complete dissolution of the host framework, resulting in the full recovery of OVDF. The peaks of the isolated OVDF are identical to those of the neat OVDF. This result shows that OVDF was successfully introduced into the host nanochannels without changing its chemical structure.
Figure S2. Plots of dielectric loss $\varepsilon''$ versus temperature for the neat OVDF at 1 (orange), 10 (green), 100 (blue), 1000 (purple), and 10000 (black) Hz.

Figure S3. Plots of the real part of the dielectric permittivity versus temperature for I⇌OVDF at 1 (orange), 10 (green), 100 (blue), 1000 (purple), and 10000 (brown) Hz.
Figure S4. Cole-Cole representation of the dielectric data for 1⊃OVDF at various temperatures.