Electronic Supplementary Material (ESI) for Nanoscale.

Supporting Information

Exploring the potential of CuCoFeTe@CuCoTe yolk-shelled microrods in supercapacitor applications

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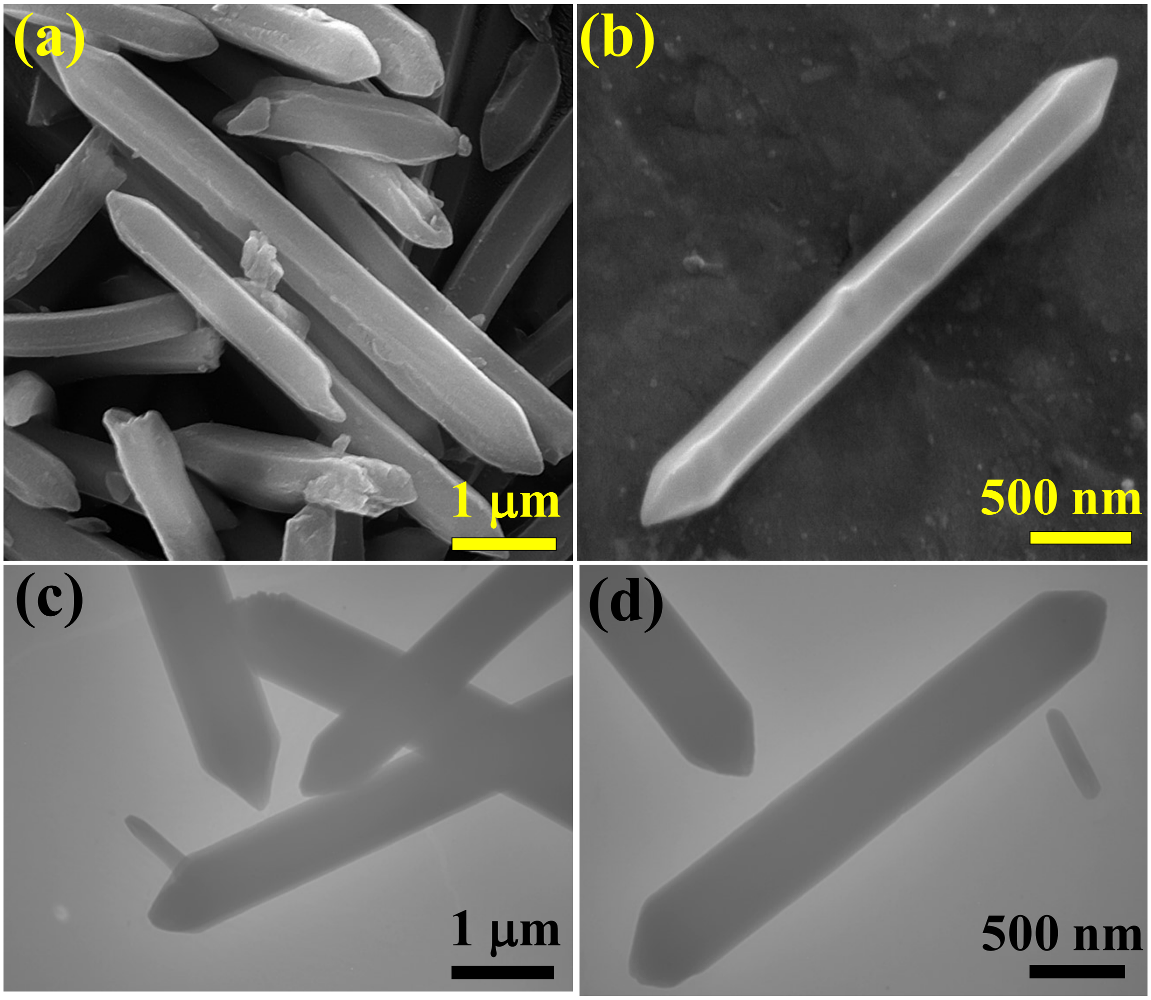

Fig. S1 (a, b) FESEM images of the MIL-88A. (c, d) TEM images of the MIL-88A.

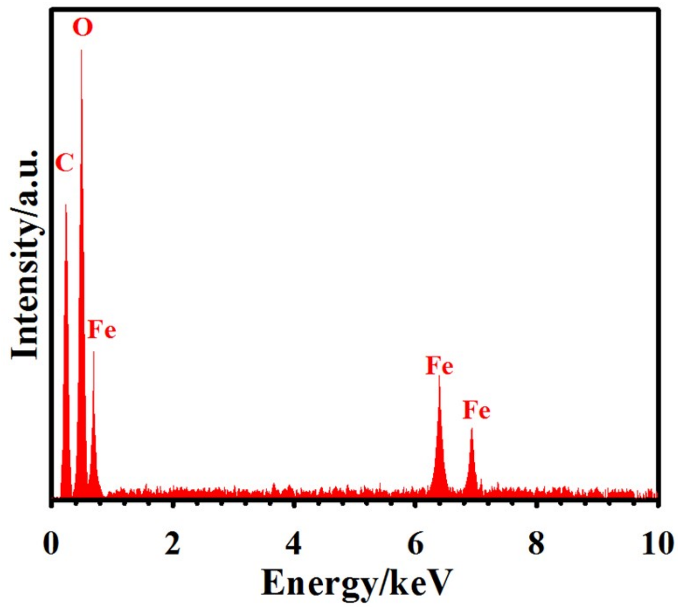

Fig. S2 EDX spectrum of the MIL-88A.

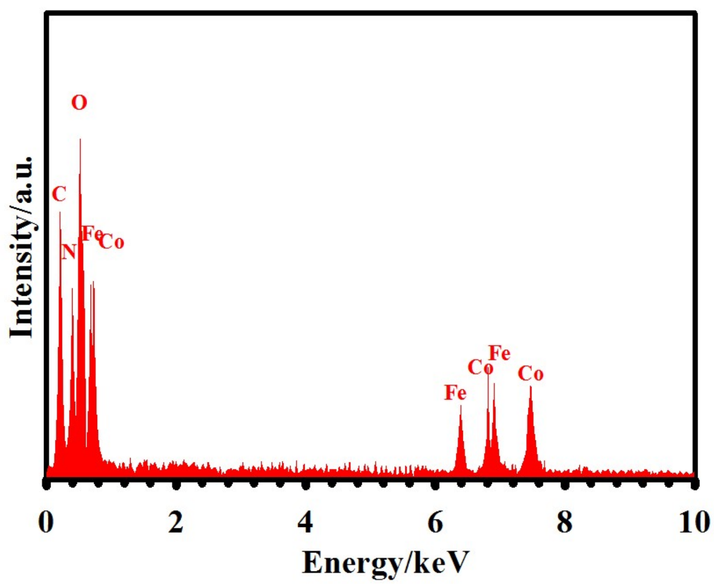

Fig. S3 EDX spectrum of the CFLDH-ZIF67.

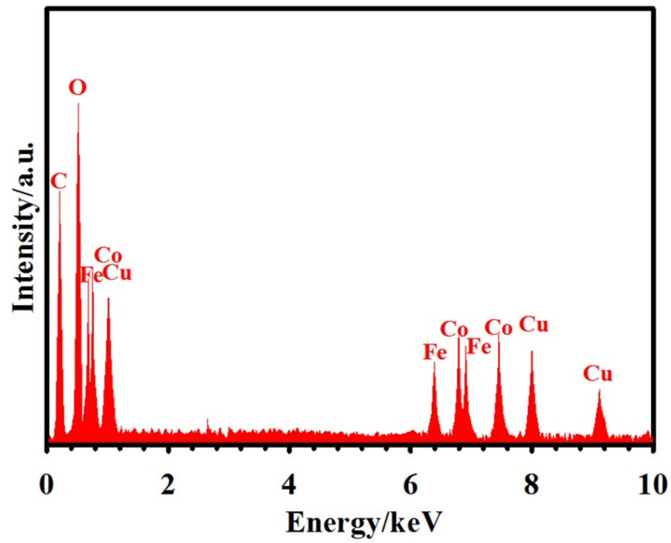

Fig. S4 EDX spectrum of the CCFLDH-CCLDH.

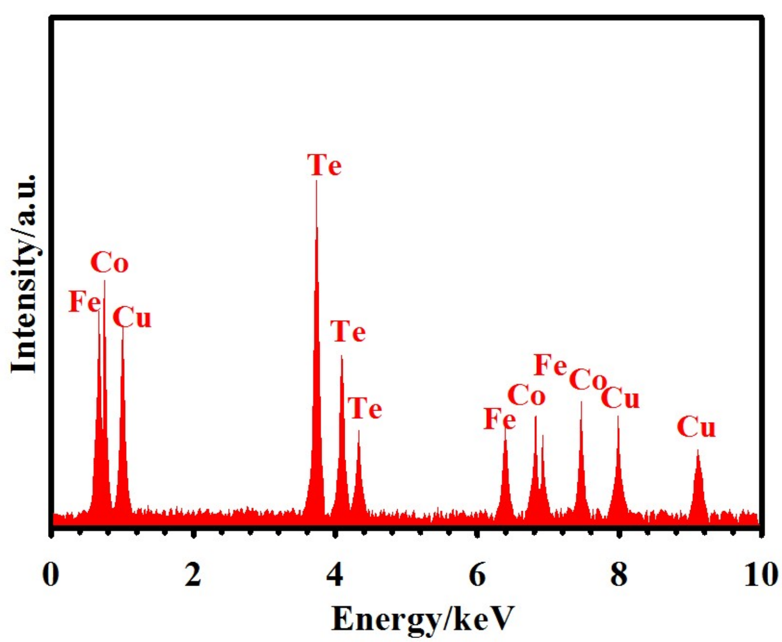

Fig. S5 EDX spectrum of the CCFT-CCT.

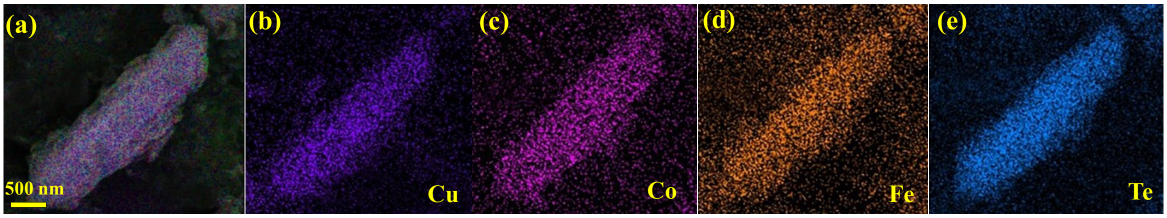

Fig. S6 FESEM mapping images of the CCFT-CCT.

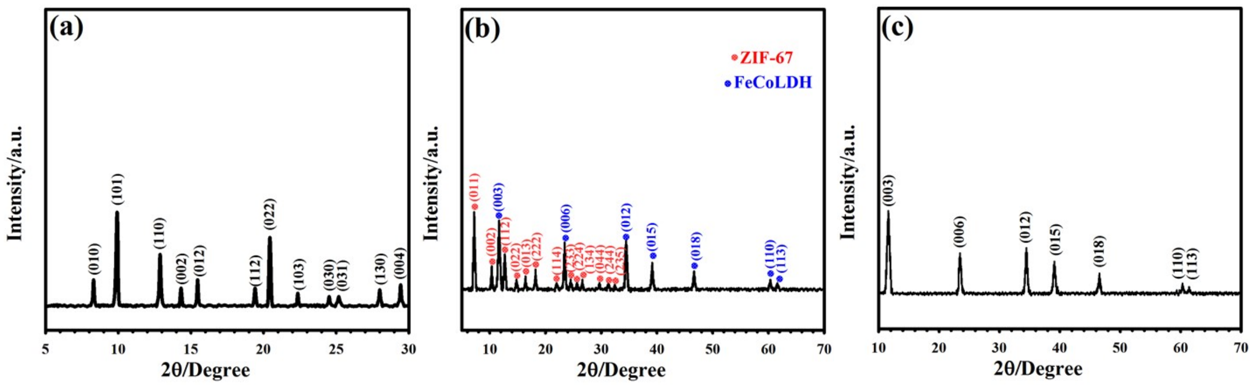

Fig. S7 (a) XRD pattern of the MIL-88A. (b) XRD pattern of the CFLDH-ZIF67. (c) XRD pattern of the CCFLDH-CCLDH.

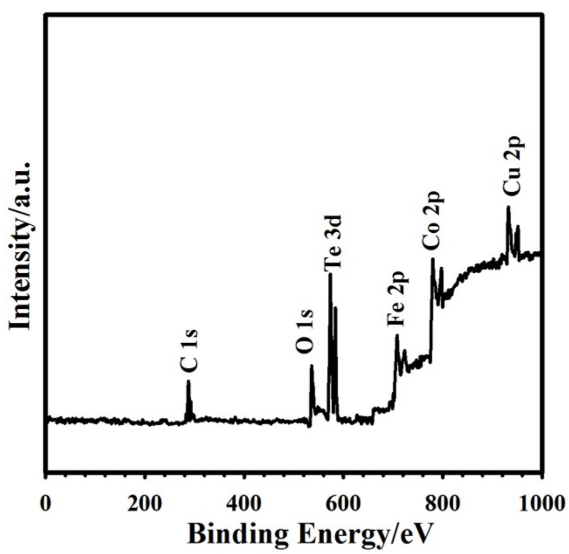

Fig. S8 Survey spectrum of the CCFT-CCT.

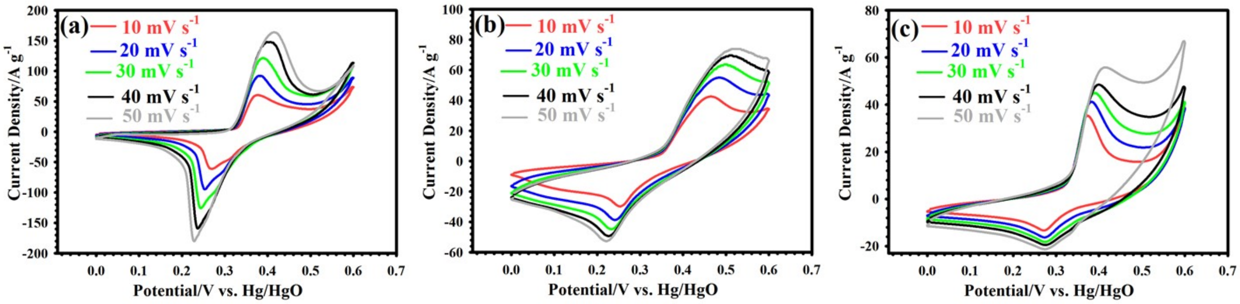

Fig. S9 (a) CV curves of the CCFLDH-CCLDHYSMR from 10 to 50 mV s^{-1}. (b) CV curves of the CFLDH-ZIF67 from 10 to 50 mV s^{-1}. (c) CV curves of the MIL-88A from 10 to 50 mV s^{-1}.

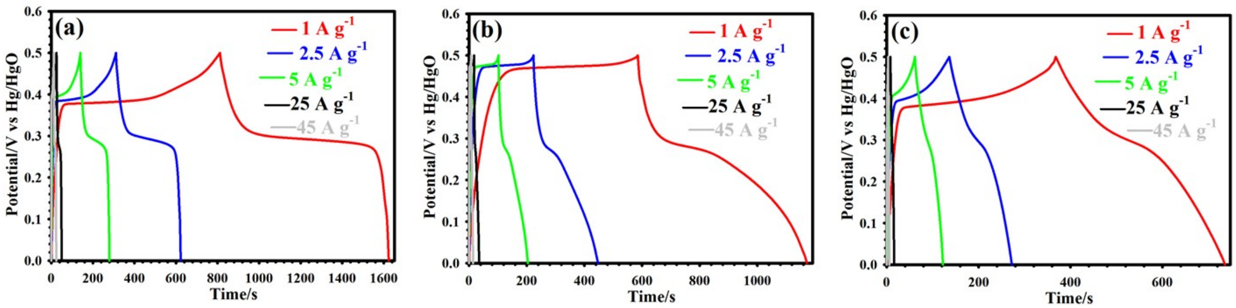

Fig. S10 (a) GCD curves of the CCFLDH-CCLDHYSMR from 1 to 45 A g^{-1}. (b) GCD curves of the CFLDH-ZIF67 from 1 to 45 A g^{-1}. (c) GCD curves of the MIL-88A from 1 to 45 A g^{-1}.

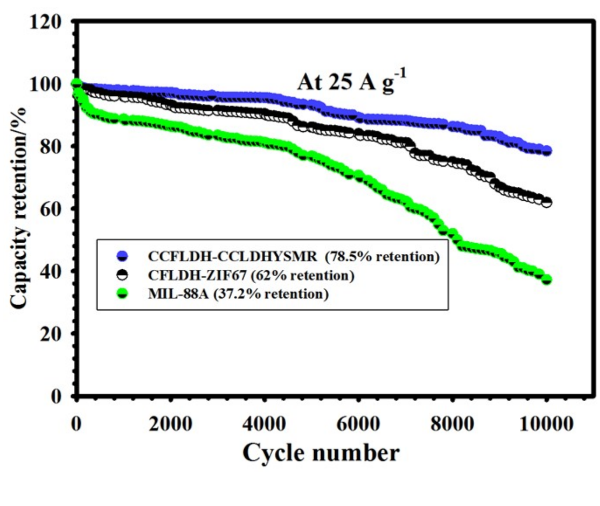

Fig. S11 Longevity of the MIL-88A, CFLDH-ZIF67, and CCFLDH-CCLDHYSMR electrodes at 25 A g^{-1}.

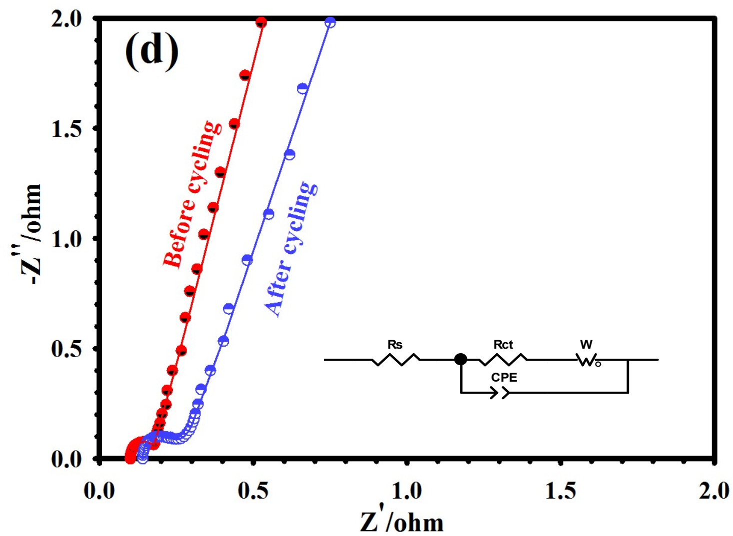

Fig. S12 EIS curves of the CCFT-CCTYSMR before and after 10000 cycles.

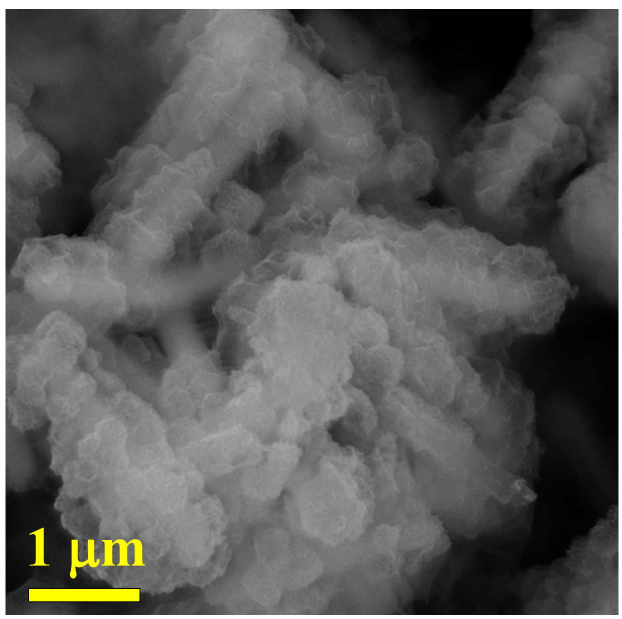

Fig. S13 FESEM image of the CCFT-CCTYSMR after 10000 cycles.

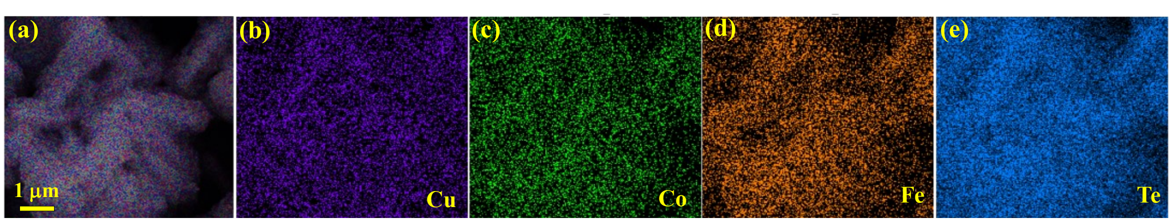

Fig. S14 FESEM mapping images of the CCFT-CCTYSMR after 10000 cycles.

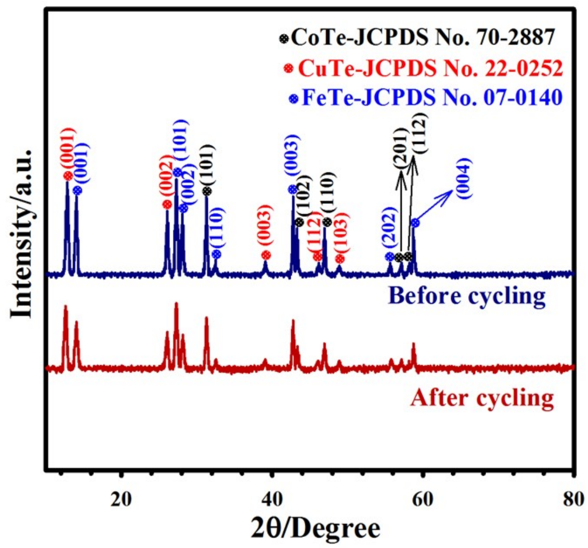

Fig. S15 XRD pattern of the CCFT-CCTYSMR before and after 10000 GCD cycles.

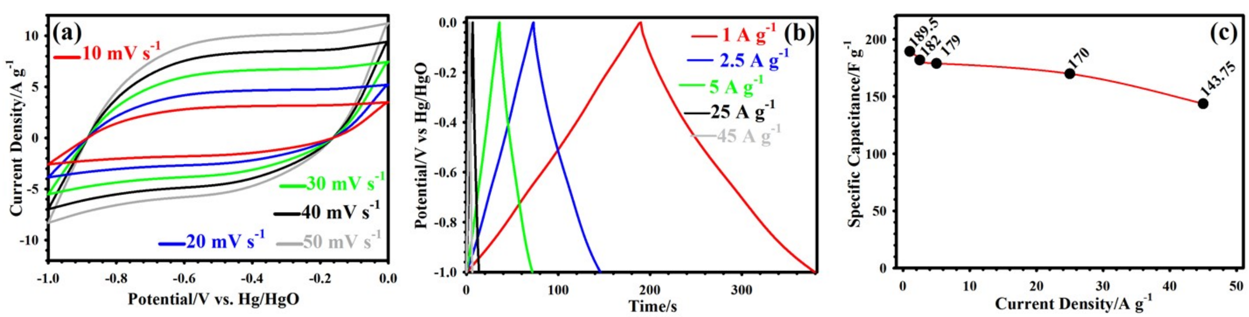

Fig. S16 (a) CV plots of the AC from 10 to 50 mV s^{-1}. (b) GCD plots of the AC from 1 to 30 A g^{-1}. (c) Rate capability of the AC electrode.

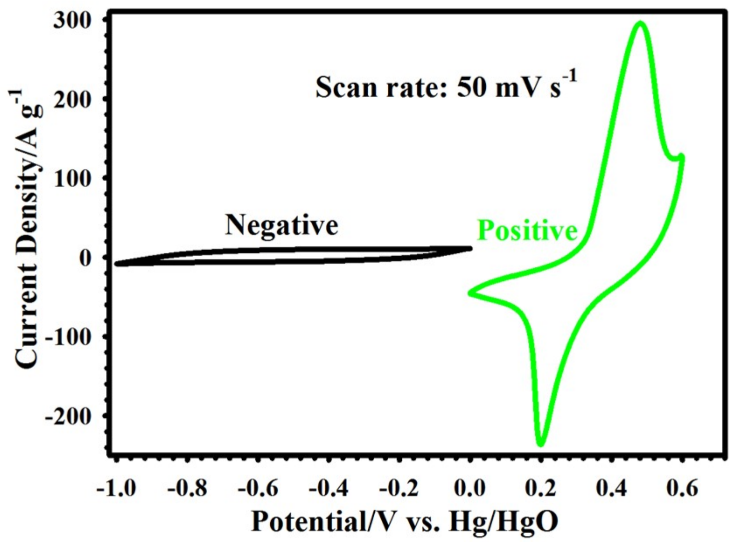

Fig S. 17 CV plots of AC (negative electrode) and CCFT-CCTYSMR (positive electrode) at 50 mV s^{-1}in three-electrode cell.

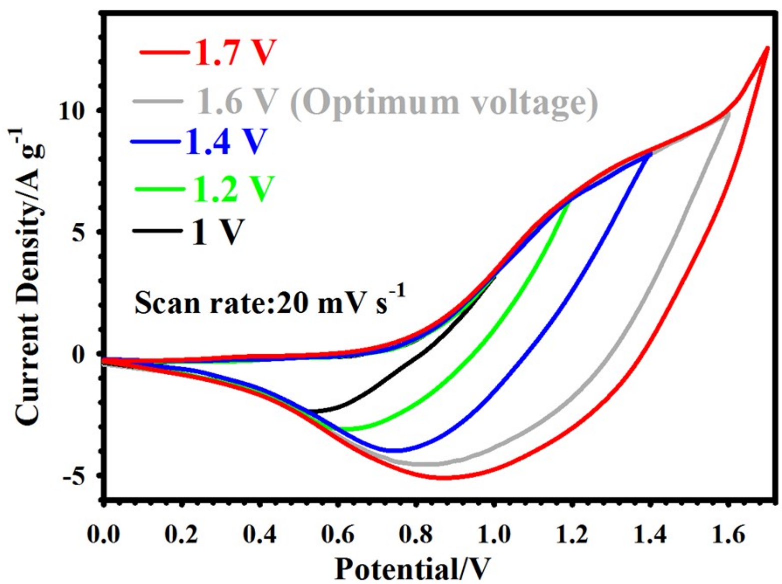

Fig. S18 CV plots of the AC||CCFT-CCTYSMR at various potential window at 20 mV s^{-1} from 1.0 to 1.7 V.

Table S1. Comparison of the performance of the CCFT-CCTYSMR with other previously reported electrode materials.

Composition	**Capacity (C/g)**	**Cycles, retention**	**Rate capability**	**ED (Wh kg^{-1})**	**Reference**
$MnSe_2/CoSe_2$-rGO	**1139 at 1 A g^{-1}**	**5000, 98.5%**	**80% at 20 A g^{-1}**	**45.8**	**1**
CoZnSe@CNTsCNFs	**1040.1 at 1 A g^{-1}**	**50000, 97.2%**	**52.3% at 30 A g^{-1}**	**61.4**	**2**
$Ni_{0.33}Co_{0.67}Te$	**472.3 at 1 A g^{-1}**	**5000, 92%**	**60.4% at 20 A g^{-1}**	**54**	**3**
rGO-CCSe	**724 at 1 A g^{-1}**	**6000, 91.5%**	**71% at 60 A g^{-1}**	**57.8**	**4**
CoTe	**354 at 1 A g^{-1}**	**5000, 76.9%**	**90.2% at 20 A g^{-1}**	**32.9**	**5**
NiSe-$Ni_{0.85}Se$	**669 at 1 A g^{-1}**	**5000, 80%**	**69% at 20 A g^{-1}**	**41**	**6**
CuSe@MnSe	**635.32 at 1 A g^{-1}**	**7000, 91.62%**	**60.3% at 30 A g^{-1}**	**19.4**	**7**
CMS-DSHNC	**1029.8 at 1 A g^{-1}**	**7000, 91.5%**	**76.14% at 50 A g^{-1}**	**45**	**8**
CCFT-CCTYSMR	**1512 at 1 A g^{-1}**	**10000, 91.86 (3 E)**	**84.45% at 45 A g^{-1}**	**63.46**	**This study**

References

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