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Supplementary Information

High performance asymmetric capacitive mixing with oppositely charged carbon electrodes for energy production from salinity differences

Fei Zhan, Gang Wang,* Tingting Wu, Qiang Dong, Yulan Meng, Jianren Wang, Juan Yang, Shaofeng Li and Jieshan Qiu*

State Key Lab of Fine Chemicals, School of Chemical Engineering, Liaoning Key Lab for Energy Materials and Chemical Engineering, Dalian University of Technology, Dalian 116024, China.

*Correspondence to: wghy1979@163.com and jqiu@dlut.edu.cn or jasonqiu@xjtu.edu.cn

Table S1. Comparison of performance between this work's Asy-CapMix, typical CapMix and previous Asy-CapMix

Electrode 1	Electrode 2	External Power Source	Membrane	Voltage Rise (mV)	Average Power Density (mW m^{-2})	Peak Power Density (mW m^{-2})	Reference
AC	AC	Yes	No	33	6.6	72	1
AC	AC	Yes	No	15.4	1.03	18	2
AC	AC	Yes	No	42.4	0.13	n/a	3
AC	AC	Yes	No	33.4	1.06	n/a	4
AC	AC	Yes	No	29	0.3	n/a	5
AC	AC	Yes	No	29	3.3	n/a	6
AC	AC	No	Yes	119	12.9	72	7
AC	AC	No	Yes	93	8.4	132	8
AC	AC	No	Yes	144	0.4	n/a	9
AC	AC	Yes	Yes	136	205	n/a	10
AC/p-TSA[a)]	AC/PEI-EN[b)]	Yes	No	83	28	n/a	11
AC/p-TSA[a)]	AC/PEI-EN[b)]	Yes	No	82	35	n/a	12
AC/PSS[c)]	AC/PDADMAC[d)]	Yes	No	120	50	n/a	13
A-PC-2[e)]	NS30[e)]	No	No	53	50	n/a	14
AC/PSS	AC/PDADMAC	No	No	70	12.1	113	15
AC/PSS	AC/PDADMAC	No	No	72	30	n/a	6
AC-QPVP	AC-HNO_3	No	No	150.0	65.0	1086	This study

Notes: [a)]p-toluenesulfonic acid; [b)]polyethyleneimine branched with ethylene diamine; [c)]poly (sodium 4-styrenesulfonate); [d)]poly (diallyldimethylammonium chloride); [e)]different kinds of pristine AC.

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