

1 **Supplementary information**

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5 **Effect of Activated Carbon Electrode Material Characteristics on Hardness Control**
6 **Performance of Membrane Capacitive Deionization**

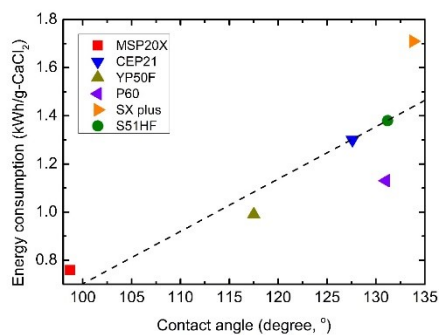
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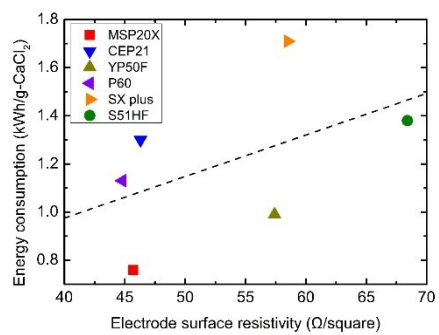
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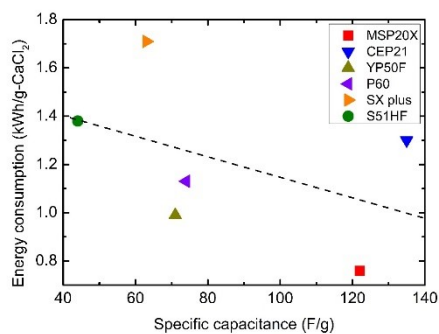
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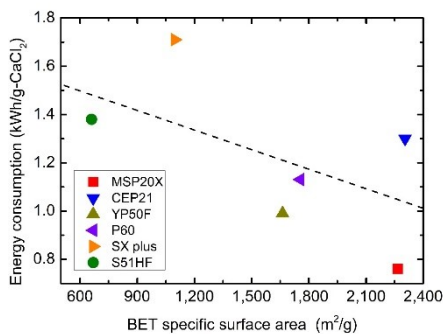
(a)



(b)



(c)



(d)

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5 **Fig. S1** Energy consumption of MCDI for hardness control with respect to (a,b) contact angle, (c,d) surface
 6 resistivity, (e,f) specific capacitance, and (g,h) BET-specific surface area. The dashed line represents the
 7 trend line. (Flow rate: 2 mL/min, Feed: 6.25 mM CaCl₂, and Temp.: 25 °C)

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