

Supporting Information

Reversible generation of large retractive tensile forces in isometric chemo-mechanical actuators composed of nanocomposite hydrogels and aqueous NaCl solutions

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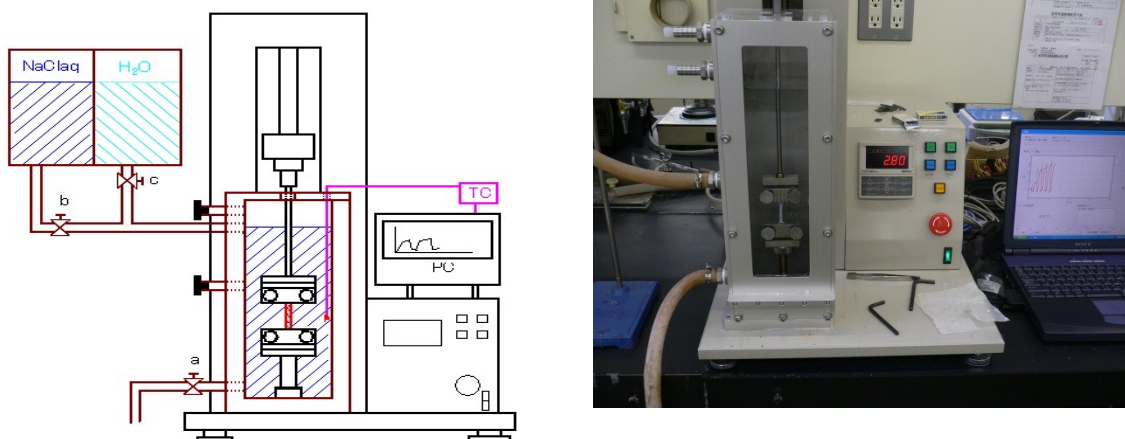


Fig. S1 Lab-made tensile testing instrument, operable in different aqueous environments. NC gel rod sample is fixed to a constant length (30 mm) by clamping between jaws directly connected to load-cell.

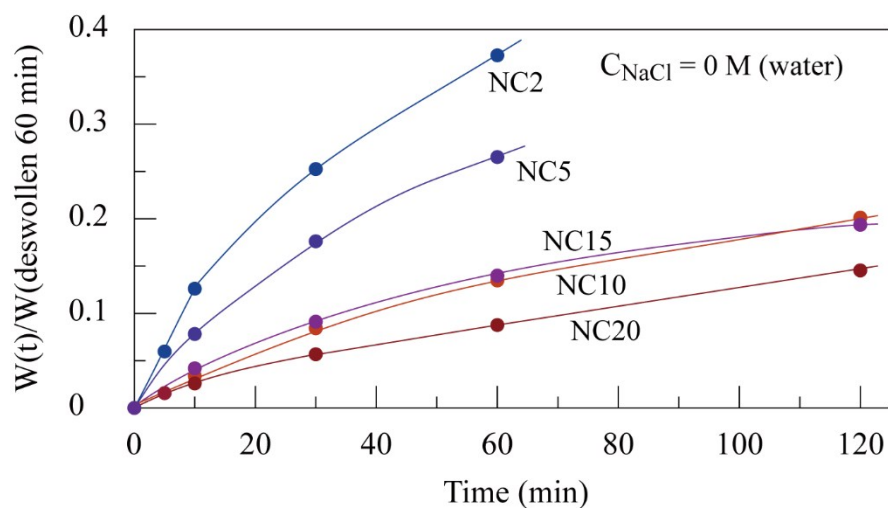


Fig. S2 Swelling behavior of $\text{NC}_n\text{-m1}$ gels in water at 20 °C, which were previously deswollen for 60 min in 5-M aqueous NaCl solution (Figure 1b).

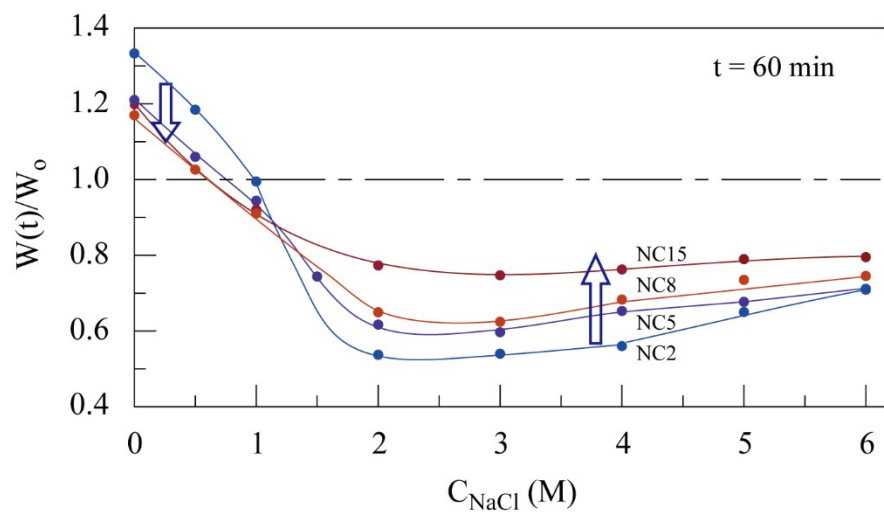


Fig. S3 Changes in swelling/deswelling behavior for NC n -m1gels with different n (2–15) under the same conditions with Figure 2b (5-M aqueous NaCl solution, 20 °C, and 60 min). W_o is the weight of original gel before immersion.