**Supporting Information**

**Antifreezing ionotronic skin based on flexible, transparent, and tunable ionic conductive nanocellulose hydrogels**

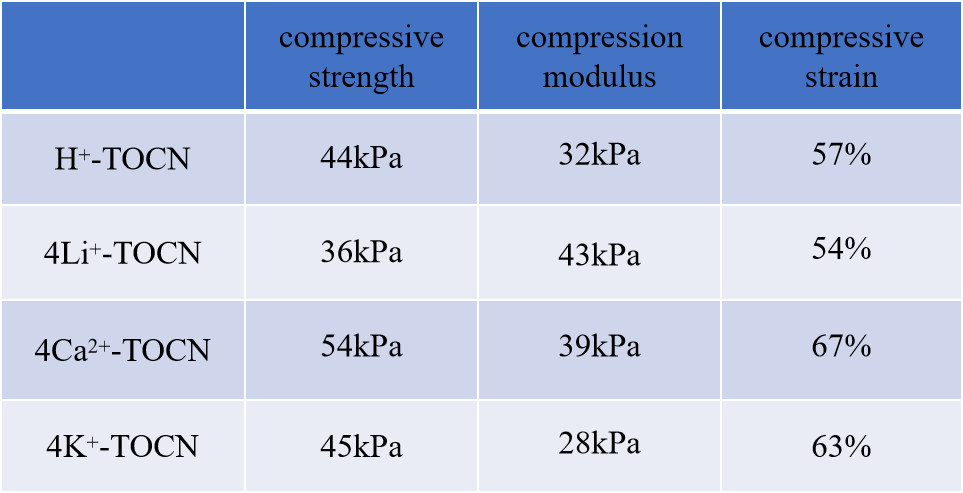
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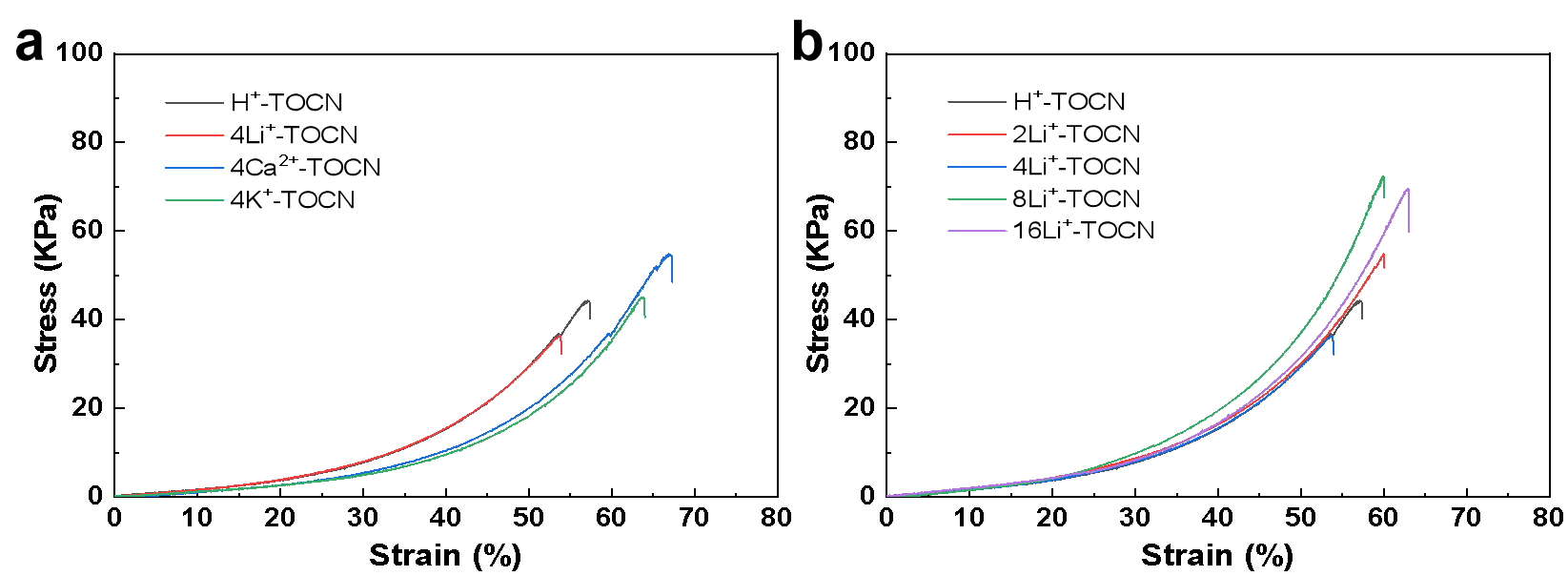
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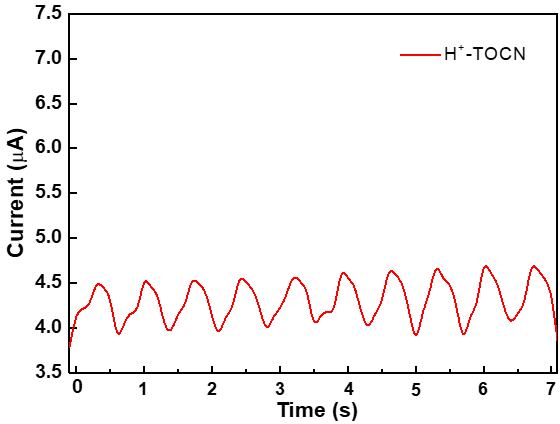
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**Table S1.** Mechanical properties of the hydrogels of H+-TOCN, 4Li+-TOCN, 4Ca2+-TOCN, 4K+-TOCN.





**Fig. S1.** Compressive stress-strain curves of (a) H+-TOCN, 4Li+-TOCN, 4Ca2+-TOCN, and 4K+-TOCN hydrogels; (b) Li+-TOCN hydrogels with different Li+ concentrations.

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**Fig. S2.** Sensing properties of H+-TOCN hydrogel.