Support information for

Cellulose-Based Self-healing Hydrogel through Boronic Ester Bond with Excellent Biocompatibility and Conductivity

Heng An, Yunyi Bo, Danyang Chen, Yong Wang, Haijun Wang, Yingna He, Jianglei Qin

a College of Chemistry and Environmental Science, Hebei University, Baoding City, Hebei Province 071002, China; qinhbu@iccas.ac.cn (J. Q.)

b Hebei Key Laboratory of Chinese Medicine Research on Cardio-Cerebrovascular Disease, Pharmaceutical College, Hebei University of Chinese Medicine, Shijiazhuang City, Hebei Province 050200, China

c Key Laboratory of Pathogenesis mechanism and control of inflammatory-autoimmune diseases in Hebei Province, Hebei University, Baoding City, Hebei Province 071002, China

Figure S1. UV absorbance of CMC-B(OH)₂ at various concentrations.

Figure S2. TGA curves of the hydrogel (2%) and its precursors.
**Figure S3.** The strain scan of the 2/1 hydrogels with (a) 2% and (b) 1% gelator concentration.

**Figure S4.** The comparison of the 2% hydrogel with 1/1 ratio before and after stretching.

**Figure S5.** Hydrogels self-healed from injected particles with various shapes for 10 min.

**Figure S6.** Phase separation of the hydrogel after addition of HCl.
Figure S7. The skin stuck hydrogel can attach onto the skin and removed easily without any residue.