

Supporting Information for

### Multiple Responsive Hydrogel Films Based on Dynamic Schiff Base Linkages

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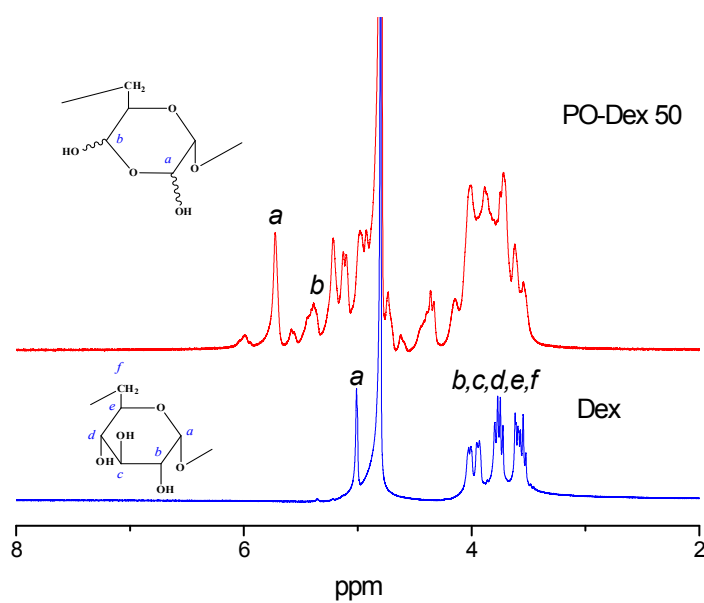


Fig S1. <sup>1</sup>H NMR spectra of Dex and PO-Dex with an oxidation degree of 50%. The solvent is D<sub>2</sub>O. The structures of Dex and PO-Dex are shown in Scheme 1. The two peaks at 5.7 and 5.4 ppm in the spectra of PO-Dex are assigned to the hemiacetal structure. No peaks were found over 8 ppm. These results indicate aldehyde structures formed in PO-Dex but existed mainly as hemiacetals.