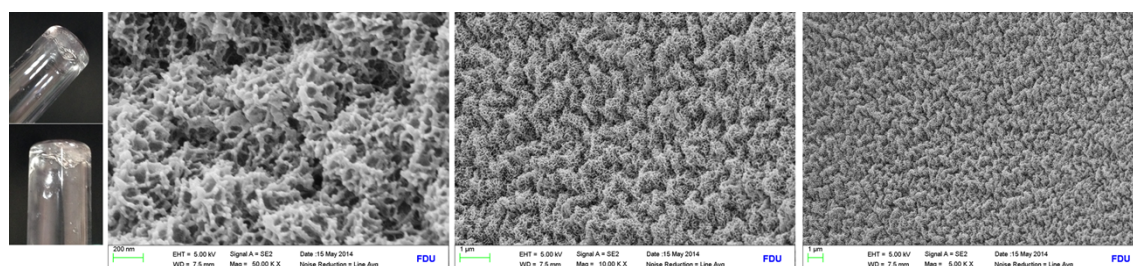


## Supporting Information to

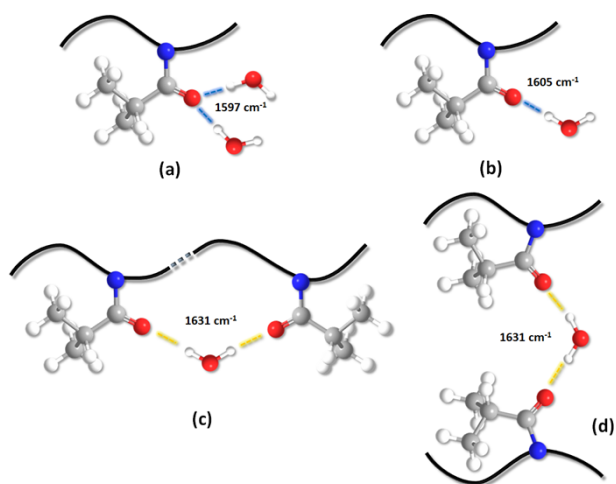
# Structural Investigation on Thermo-responsive Poly(2-isopropyl-2-oxazoline) Hydrogel across the Volume Phase Transition

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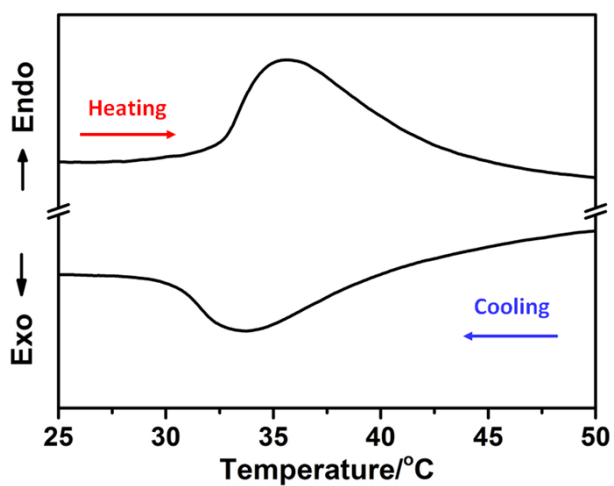
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**Fig. S1** FE-SEM micrographs of freeze-dried PIPOZ hydrogel with the pictures of fresh PIPOZ hydrogel in the vials.



**Fig. S2** Proposed structures of PIPOZ C=O units with D<sub>2</sub>O molecules and their tentative band assignments in PIPOZ aqueous solution.



**Fig. S3** DSC curves of PIPOZ-PBO hydrogel in D<sub>2</sub>O upon heating and cooling at a rate of 1 °C min<sup>-1</sup>.