

*Electronic Supplementary Information*

# Synthesis of Block Cationic Polyacrylamide Precursors Using an Aqueous RAFT Dispersion Polymerization

*Bo Huang,<sup>1</sup> Jie Jiang,<sup>1</sup> Mutian Kang,<sup>1</sup> Pingwei Liu,<sup>1,2,\*</sup> Hailong Sun,<sup>3,\*</sup> Bo-Geng Li,<sup>1</sup> and Wen-Jun Wang<sup>1,2,\*</sup>*

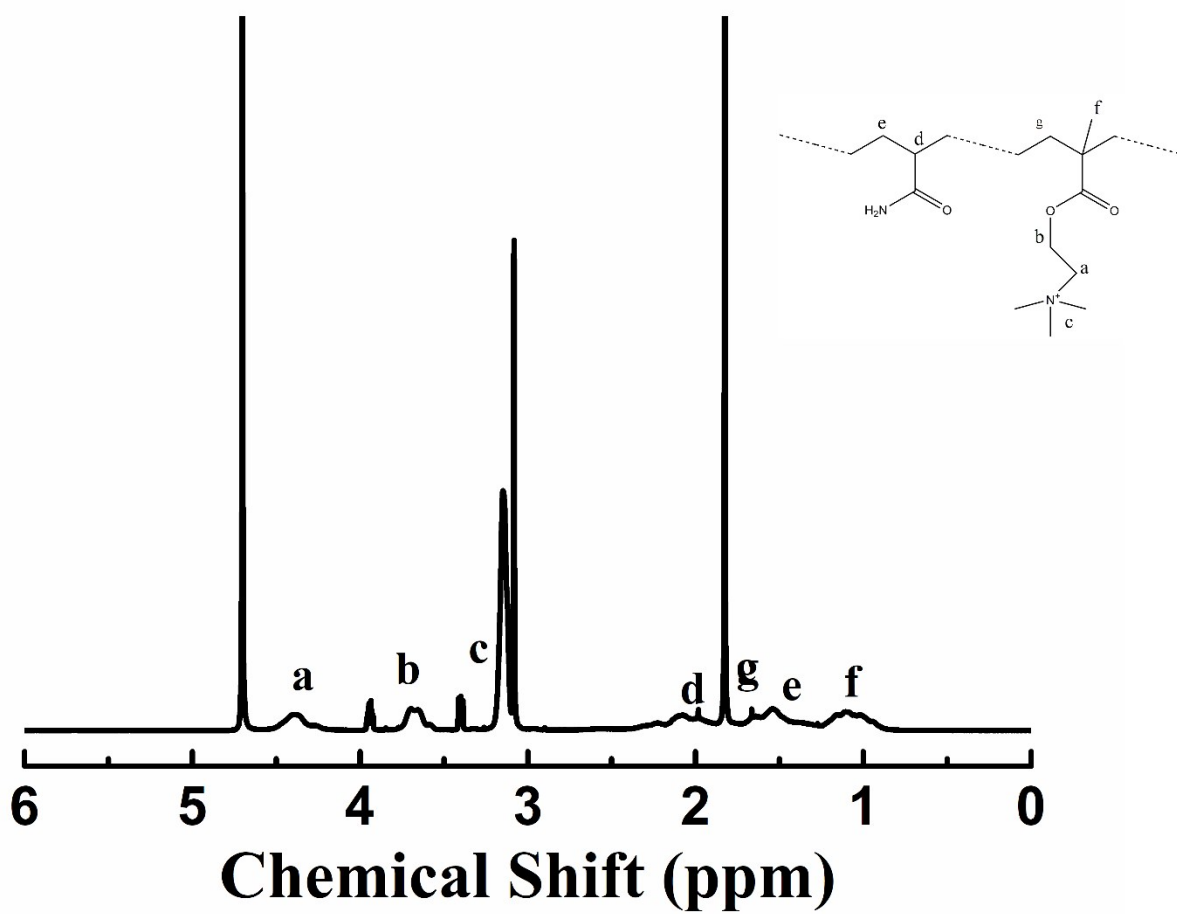
<sup>1</sup> State Key Lab of Chemical Engineering, College of Chemical and Biological Engineering, Zhejiang University, 38 Zheda Road, Hangzhou 310027, China

<sup>2</sup> Institute of Zhejiang University - Quzhou, 78 Jiuhua Boulevard North, Quzhou, China 324000

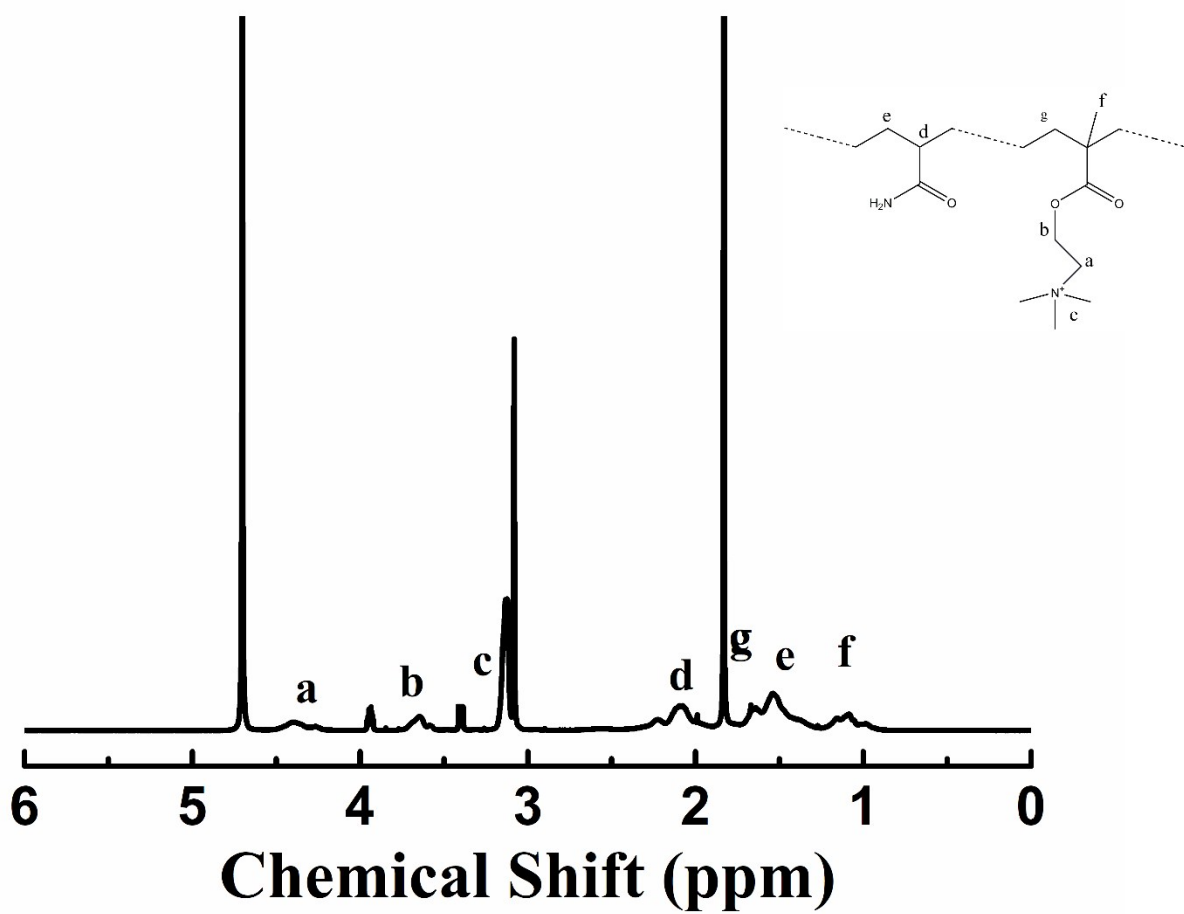
<sup>3</sup> State Key Laboratory of Hydraulics and Mountain River Engineering, Sichuan University, 24 South Section 1, Yihuan Road, Chengdu, China 610064

\* Email address of corresponding authors: wenjunwang@zju.edu.cn (W.-J. Wang);

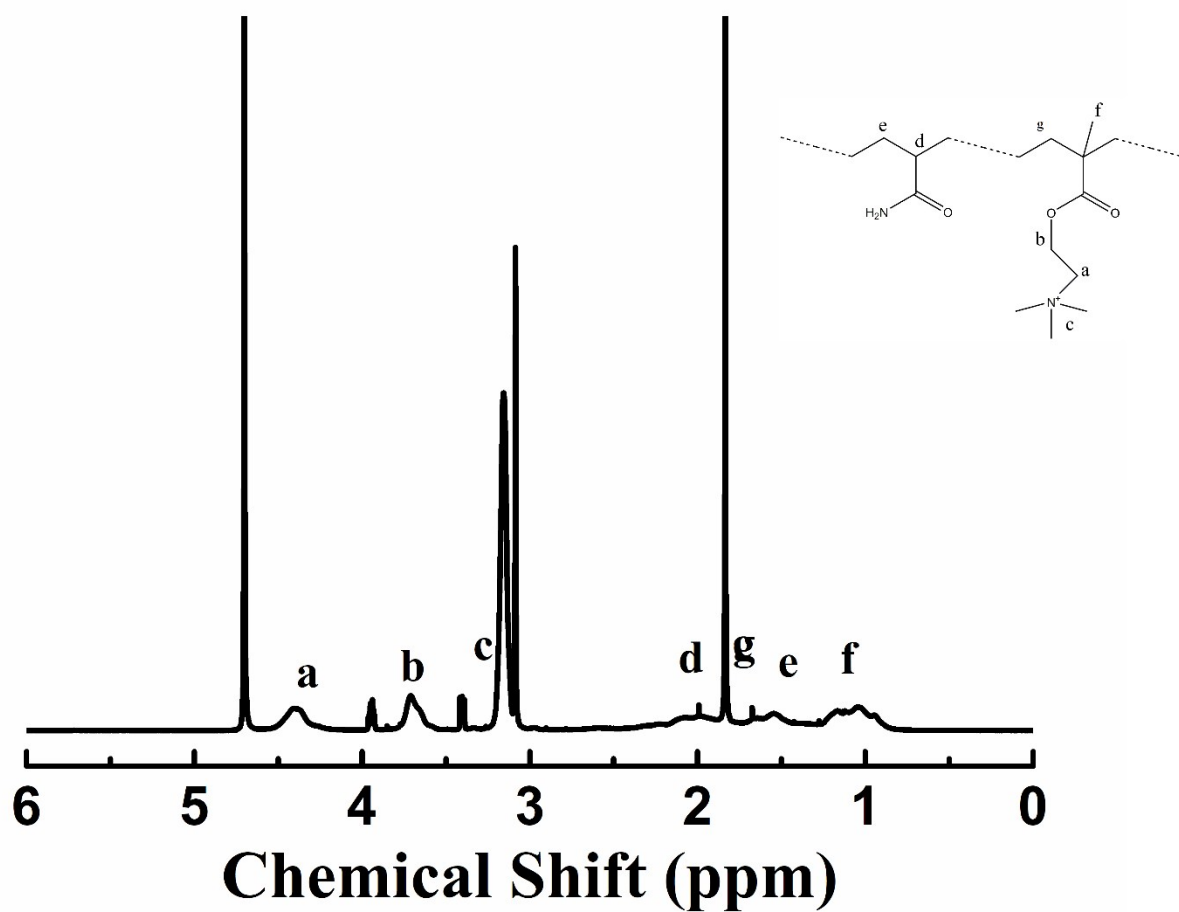
liupingwei@zju.edu.cn (P. Liu); sunhl@scu.edu.cn (H.L. Sun)



**Figure S1.** <sup>1</sup>H NMR spectrum of AM/DMC random copolymer Run M1 using D<sub>2</sub>O as deuterated solvent.



**Figure S2.**  $^1\text{H}$  NMR spectrum of CPAM block copolymer Run PAM4 synthesized via aqueous RAFT solution polymerization using M1 as mCTA. Deuterated solvent is  $\text{D}_2\text{O}$ .



**Figure S3.**  $^1\text{H}$  NMR spectrum of CPAM block copolymer Run AD1 produced via aqueous RAFT dispersion polymerization using M1 as mCTA. Deuterated solvent is  $\text{D}_2\text{O}$ .