## **Electronic Supplementary Information**

## Thermoreversible high-temperature gelation of an ionic liquid with poly(benzyl methacrylate-*b*-methyl methacrylate -*b*-benzyl methacrylate) triblock copolymer

Yuzo Kitazawa,<sup>‡<sup>a</sup></sup> Takeshi Ueki,<sup>‡<sup>a,d</sup></sup> Kazuyuki Niitsuma,<sup>a</sup> Satoru Imaizumi,<sup>a</sup> Timothy P. Lodge,<sup>b,c</sup> and Masayoshi Watanabe<sup>\*<sup>a</sup></sup>

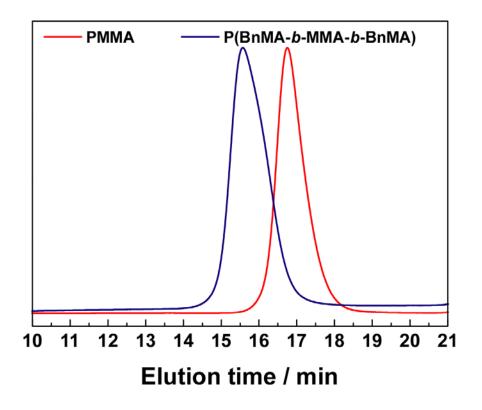
<sup>a</sup>Department of Chemistry & Biotechnology, Yokohama National University, 79-5 Tokiwadai, Hodogaya-ku, Yokohama 240-8501, Japan

<sup>b</sup>Department of Chemistry, University of Minnesota Minneapolis, Minnesota, 55455, USA

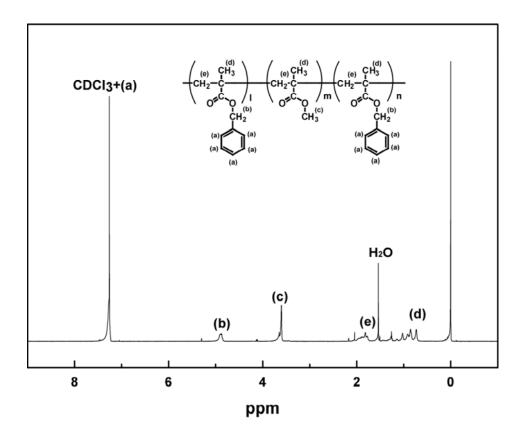
<sup>c</sup>Department of Chemical Engineering & Materials Science, University of Minnesota Minneapolis, Minnesota, 55455, USA

<sup>d</sup>Present Address: Department of Materials Engineering Graduate School of Engineering, The University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-8656 Japan E-mail: <u>mwatanab@ynu.ac.jp</u>; Tel & Fax: +81-45-339-3955

‡ Y. K. and T. U. equally contributed to this work.Corresponding author: M. W. (E-mail: mwatanab@ynu.ac.jp)



**Figure S1.** Size exclusion chromatography traces of PMMA macroinitiator and P(BnMA-*b*-MMA-*b*-BnMA) triblock copolymer (BMB).



**Figure S2.** <sup>1</sup>H NMR spectrum of BMB.