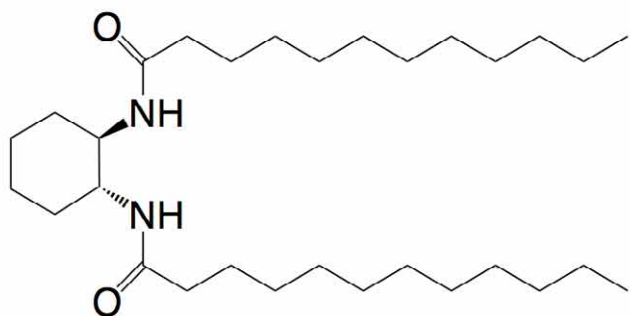


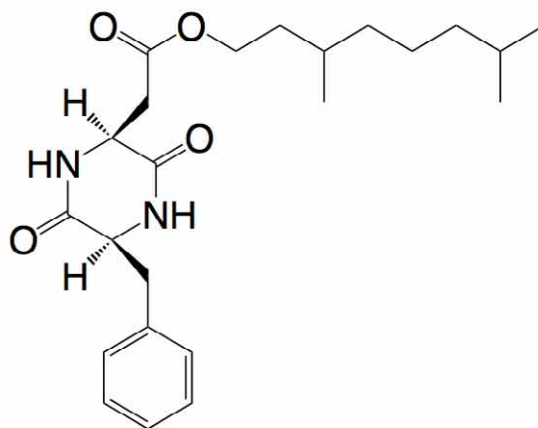
**Supplementary Information** for “Remarkable Potassium Selectivity of Ion Sensors Based on Supramolecular Gel Membranes Made from Low-Molecular-Weight Gelators without Any Ionophore”

Setsuko Yajima,<sup>a</sup> Kento Takami,<sup>a</sup> Ryosuke Ooue,<sup>a</sup> Keiichi Kimura\*<sup>a</sup>

1. Chemical structures of low-molecular-weight gelators used in this study were shown below.

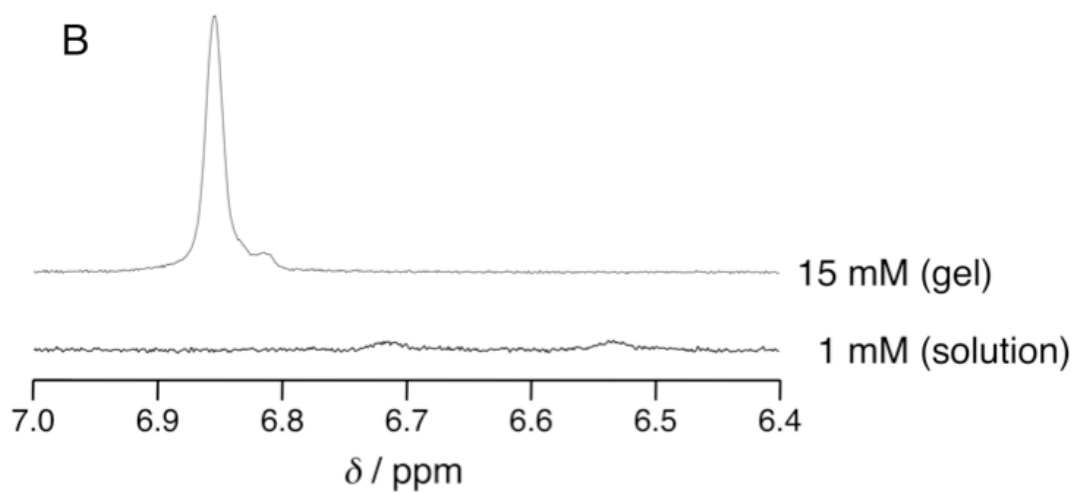
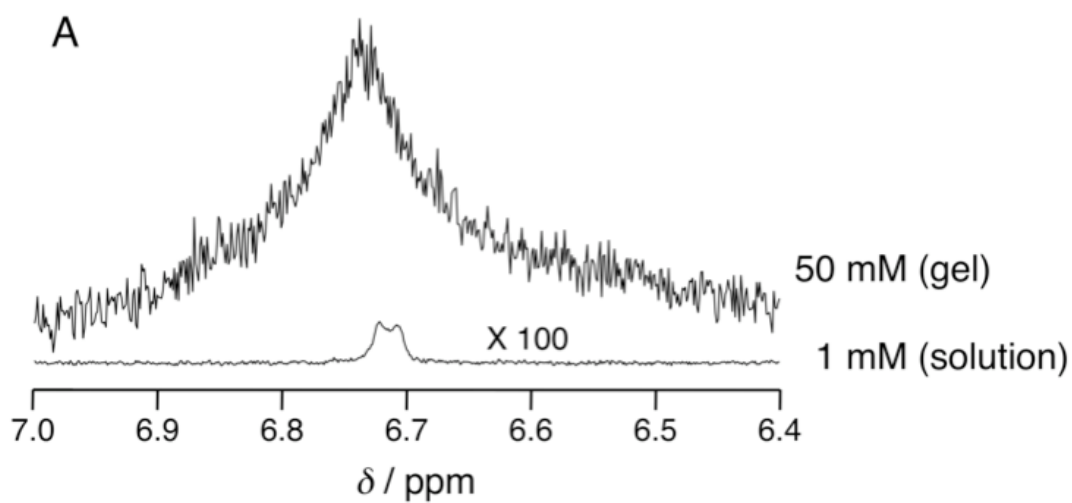


**compound 1**



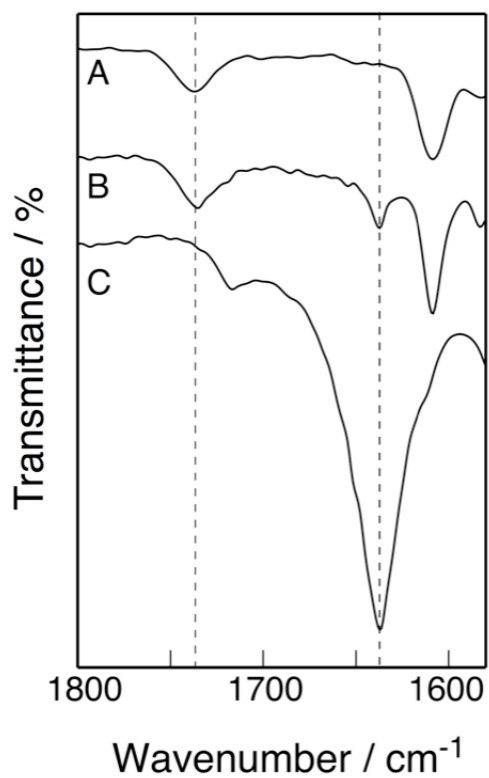
**compound 2**

2.  $^1\text{H}$  NMR spectra of gelators in nitrobenzene were shown below.



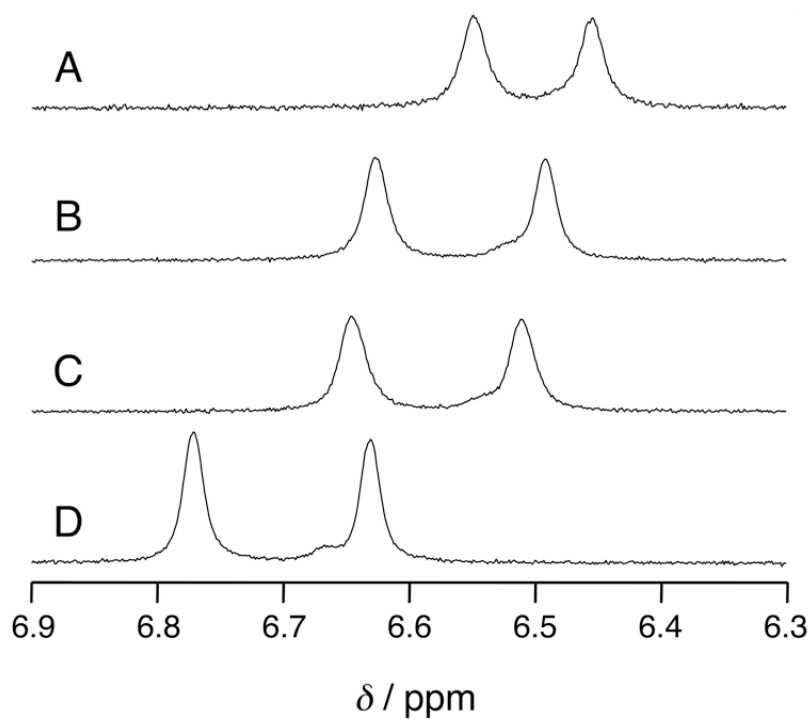
$^1\text{H}$  NMR spectra of compound **1** (A) and **2** (B) in nitrobenzene

3. FT-IR spectra of gelator dispersed in two kinds of organic solvents and a gel membrane based on compound **1** and NPOE were shown below.



IR spectra of (A) gel membrane based on compound **1** and NPOE, (B) compound **1** dispersed in NPOE, (C) compound **1** dispersed in Nujol

4.  $^1\text{H}$  NMR spectra of gelators in acetonitrile in the presence of metal ions were shown below.



$^1\text{H}$  NMR spectra of acetonitrile solutions of compound **2** only (A, 8 mM), in the presence of  $\text{K}^+$  (B),  $\text{Na}^+$  (C), and  $\text{Li}^+$  (D) ( $\text{CH}_3\text{SO}_3^-$  salts, 80 mM)