Supporting Information

For

Fluorescence Sensing of Ammonium and Organoammonium ions Using Tripodal Oxazoline Receptors

Kyo Han Ahn,* Hui-young Ku, Yusin Kim, Sung-Gon Kim, Young Kook Kim, Hyung Su Son and Ja Kang Ku*

Department of Chemistry and Center for Integrated Molecular Systems, Division of Molecular and Life Science, Pohang University of Science and Technology, San 31 Hyoja-dong, Pohang 790-784, Republic of Korea

†To whom correspondence should be made:

Professor Kyo Han Ahn Tel: +82) 54-279-2105 Fax: +82) 54-279-3399

Email: ahn@postech.ac.kr

Figure S1. UV absorption spectrum of oxazoline **1a**, 1.0 mM in acetonitrile.

Figure S2. UV absorption spectrum of oxazoline 1c, 0.2 mM in acetonitrile.

Figure S3. Fluorescence emission changes of tripodal oxazoline **1c** (0.05 mM) upon addition of NH₄⁺ (as ClO₄⁻ salt; from the top: 0.25, 0.50, 0.75, 1.00, 1.25 and 1.50 equiv. with respect to **1b**) in the presence of an excess amount (10 molar equiv.) of K⁺ClO₄⁻ in acetonitrile following at 282-nm excitation.

Figure S4. Changes of UV absorption spectra of **1a** upon addition of NH₄⁺ (as ClO₄⁻ salt) in acetonitrile at 25 °C.

Figure S5. Fluorescence emission changes of tripodal oxazoline **1a** (1.0 mM) upon addition of NH₄⁺ (as ClO_4 salt) in the presence of an excess amount (10 molar equiv) of K⁺ ClO_4 in acetonitrile following at 272-nm excitation.

Figure S6. Fluorescence emission changes of tripodal oxazoline **1b** (1.0 mM) upon addition of NH₄⁺ (as ClO₄⁻ salt)

Figure S7. Fluorescence emission changes of tripodal oxazoline **1b** (1.0 mM) upon addition of PhCH₂CH₂NH₃⁺ (as ClO₄⁻ salt)

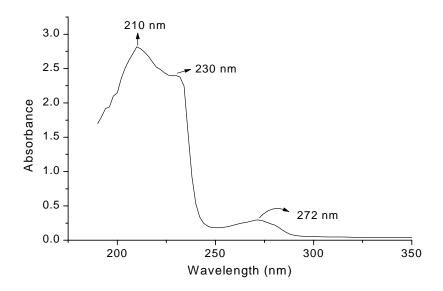


Figure S1. UV absorption spectrum of oxazoline 1a, 1.0 mM in acetonitrile.

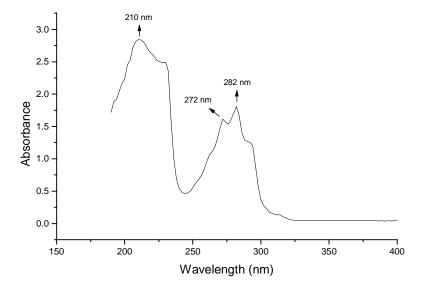


Figure S2. UV absorption spectrum of oxazoline 1c, 0.2 mM in acetonitrile.

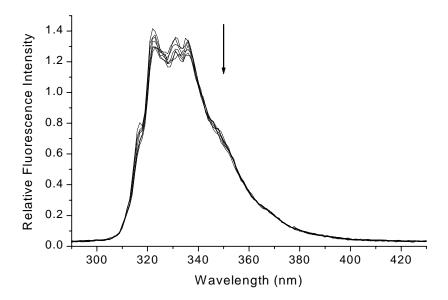


Figure S3. Fluorescence emission changes of tripodal oxazoline **1c** (0.05 mM) upon addition of NH_4^+ (as ClO_4^- salt; from the top: 0.25, 0.50, 0.75, 1.00, 1.25 and 1.50 equiv. with respect to **1c**) in the presence of an excess amount (10 molar equiv.) of $K^+ClO_4^-$ in acetonirile following at 282-nm excitation. Very small decrease in the intensity was observed.

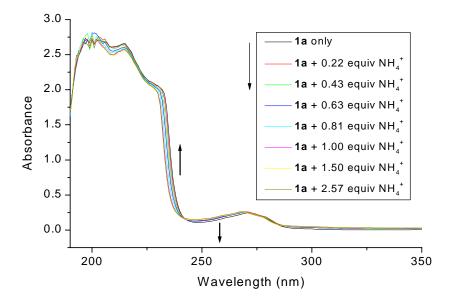


Figure S4. Changes of UV absorption spectra of **1a** upon addition of NH_4^+ (as ClO_4^- salt) in acetonitrile at 25 °C.

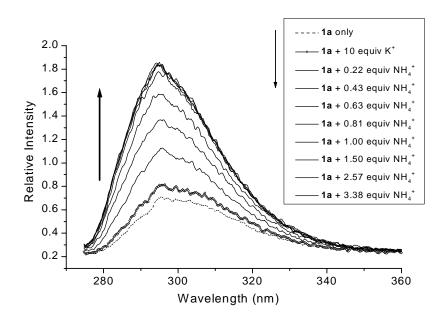


Figure S5. Fluorescence emission changes of tripodal oxazoline **1a** (1.0 mM) upon addition of NH_4^+ (as ClO_4^- salt) in the presence of an excess amount (10 molar equiv) of $K^+ClO_4^-$ in acetonitrile following at 272-nm excitation.

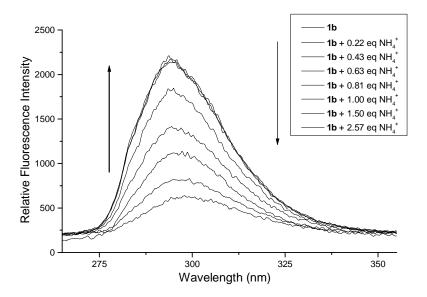
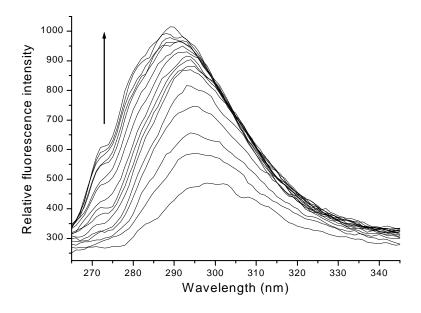


Figure S6. Fluorescence emission changes of tripodal oxazoline **1b** (1.0 mM) upon addition of NH_4^+ (as ClO_4^- salt) in acetonitrile following at 272-nm excitation.



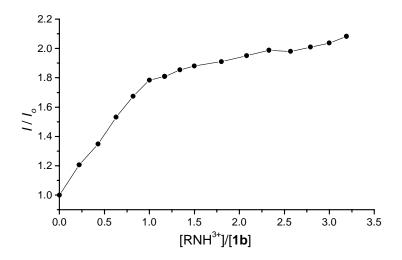


Figure S7. Fluorescence emission changes of tripodal oxazoline **1b** (1.0 mM) upon addition of PhCH₂CH₂NH₃⁺ (as ClO₄⁻ salt) in acetonitrile following at 272-nm excitation. The lower plot shows the relative fluorescence intensity depending on the molar ratio, [PhCH₂CH₂NH₃⁺]/[**1b**].