Electronic Supplementary Information (ESI) for

Methyl-restricted fluorescent rotor rotation on the stator produces high-efficiency fluorescence emission: A new strategy to achieve aggregation-induced emission

Haicheng Yang,\textsuperscript{a} Xinyue Zhou,\textsuperscript{a} Tianqi Hui,\textsuperscript{a} Yingying Han,\textsuperscript{a} Xiaonan Jiang,\textsuperscript{a} and Jie Yan\textsuperscript{*a}

\textsuperscript{a} College of Chemistry and Chemical Engineering, Liaoning Normal University, Huanghe Road 850#, Dalian City, 116029, PR China. E-mail: yhc1994@live.cn

Table of Contents

Fig. S1. XRD diffractogram of as-prepared powder of TFTB and TFB. \hspace{1cm} S2

Fig. S2. PL spectra of TFB in water/THF mixtures with different water fraction. \hspace{1cm} S2

Fig. S3. Molecular orbital amplitude plots of HOMO and LUMO of TFTB and TFB. \hspace{1cm} S3

Fig. S4. Absorption spectra of TFTB and TFB in THF solutions. \hspace{1cm} S3

Fig. S5. Calculated HOMO and LUMO energy levels of TFTB and TFB. \hspace{1cm} S4

Fig. S6. DSC curves (second heating scan) of TFTB and TFB. \hspace{1cm} S4

Characterization \hspace{1cm} S5
Figures

Fig. S1. XRD diffractogram of as-prepared powder of (A) TFTB and (B) TFB.

Fig. S2. PL spectra of TFB in THF/water mixtures with different water fraction ($f_w$).
Fig. S3. Molecular orbital amplitude plots of HOMO and LUMO of TFTB and TFB calculated using B3LYP/6-31G(d) basis set.

Fig. S4. Absorption spectra of TFTB and TFB in THF solutions.
Fig. S5. Calculated HOMO and LUMO energy levels of TFTB and TFB using B3LYP/6-31G(d) basis set.

Fig. S6. DSC curves (second heating scan) of TFTB and TFB recorded under nitrogen 10 mL min⁻¹ at a heating rate of 10 °C min⁻¹.
$^1\text{H}$ spectrum of 1 in CDCl$_3$.

$^{13}\text{C}$ spectrum of 1 in CDCl$_3$. 
$^1$H spectrum of 2 in CDCl$_3$.

$^{13}$C spectrum of 2 in CDCl$_3$. 

$^{1}\text{H}$ spectrum of 3 in CDCl$_3$.

$^{13}\text{C}$ spectrum of 3 in CDCl$_3$. 
$^1$H spectrum of 4 in CDCl$_3$.

$^{13}$C spectrum of 4 in CDCl$_3$. 
$^1$H spectrum of 5 in CDCl$_3$.

$^{13}$C spectrum of 5 in CDCl$_3$. 