Electronic Supplementary Information

Multi-addressable molecular switches based on a new diarylethene

salicylal Schiff base derivative

Shouzhi Pu*, Zhipeng Tong, Gang Liu, Renjie Wang

Jiangxi Key Laboratory of Organic Chemistry, Jiangxi Science and Technology

Normal University, Nanchang 330013, PR China

Email: <u>pushouzhi@tsinghua.org.cn</u> (S. Pu)

Tel & Fax: +86-791-83831996



Figure S1. Emission intensity changes of reference compound **11** stimulated by the addition of TEA at room temperature, excited at 480 nm



(A)



(B)

Figure S2. Changes in fluorescence of salicylidene Schiff base reference compound **11** in methanol $(2.0 \times 10^{-5} \text{ mol } \text{L}^{-1})$ induced by Al(III)/EDTA at room temperature, excited at 420 nm: (A) emission intensity of **11** enhanced by addition of Al(III), (B) emission intensity of **11** quenched by addition of EDTA.



(A)



(B)

Figure S3. Changes in fluorescence of diarylethene **10** in methanol $(2.0 \times 10^{-5} \text{ mol} \text{ L}^{-1})$ induced by AlCl₃/EDTA at room temperature, excited at 302 nm: (A) emission intensity of **10** enhanced by the addition of AlCl₃, (B) emission intensity of **10** quenched by the addition of EDTA.



Figure S5. ¹H and ¹³C NMR spectra of compound 8

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Figure S6. ¹H and ¹³C NMR spectra of compound 9



Figure S7. ¹H and ¹³C NMR spectra of compound **10**