

**A novel method for determination of fluorescent whitening agent CBS in flour
using flow-inject chemiluminescence based on luminol-urea peroxide system**

Gaiyan He^{b,c}, Ruixia Gao^{b*}, Yi Hao^{b,c}, Xiaoshuang Tang^{a*}

^a Department of Urology, The Second Affiliated Hospital, Xi'an Jiaotong University ,
Xi'an, Shaanxi, China.

^b Institute of Analytical Science, School of Science, Xi'an Jiaotong University, Xi'an
710049, China.

^c School of Pharmacy, Xi'an Jiaotong University, Xi'an 710061, China.

* Corresponding authors: Tel.: +86 2982655399; fax: +86 2982655399.

E-mail: ruixiagao@mail.xjtu.edu.cn; tangxiao@ sina.com

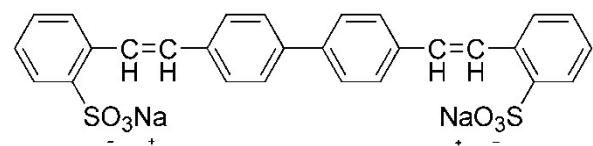


Fig.S1 The structure of the fluorescent whitening agent CBS.

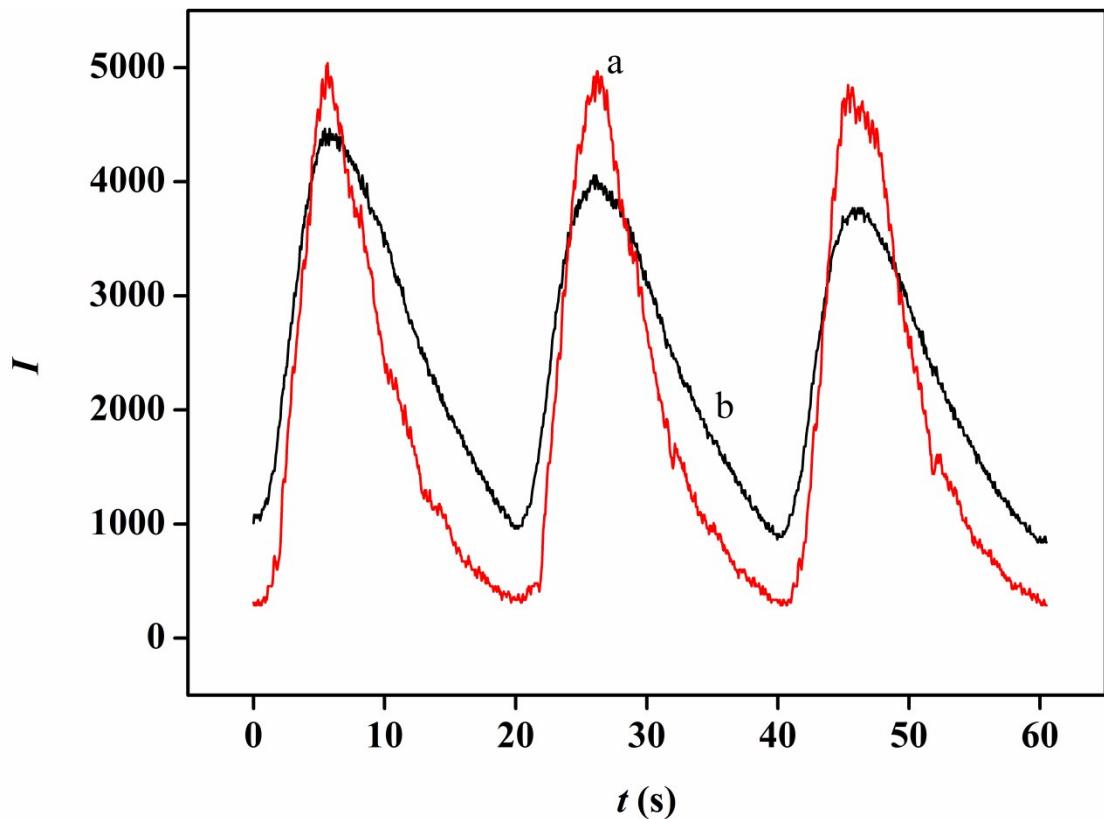
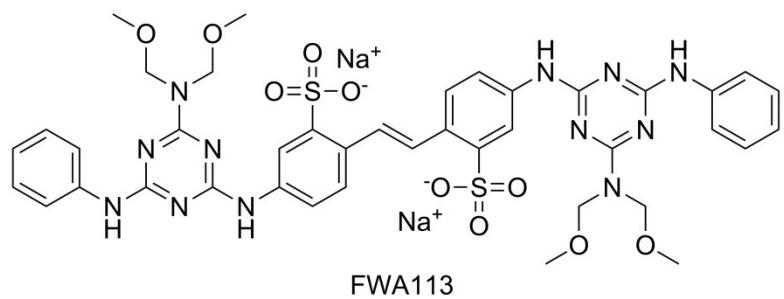
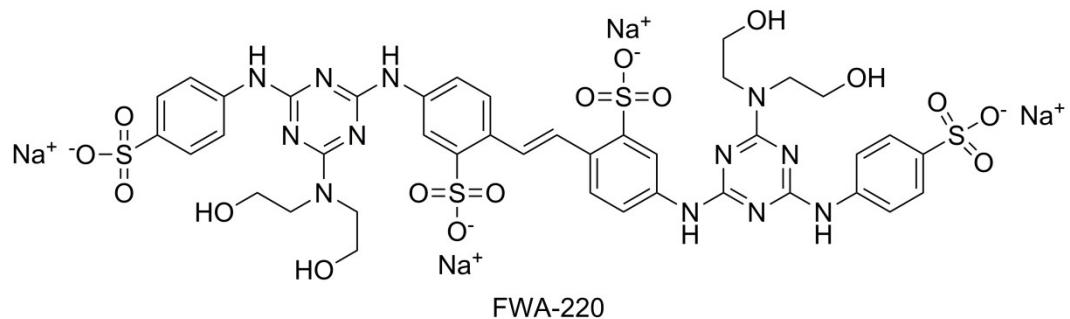


Fig.S2 Comparison of H_2O_2 with $\text{U}\bullet\text{H}_2\text{O}_2$. Conditions: (a) $50 \mu\text{mol L}^{-1}$ luminol + 20 mmol L^{-1} NaOH + 1 mmol L^{-1} $\text{U}\bullet\text{H}_2\text{O}_2$ + 100 nmol L^{-1} CBS; (b) $50 \mu\text{mol L}^{-1}$ luminol + 20 mmol L^{-1} NaOH + 1 mmol L^{-1} H_2O_2 + 100 nmol L^{-1} CBS.



FWA113



FWA-220

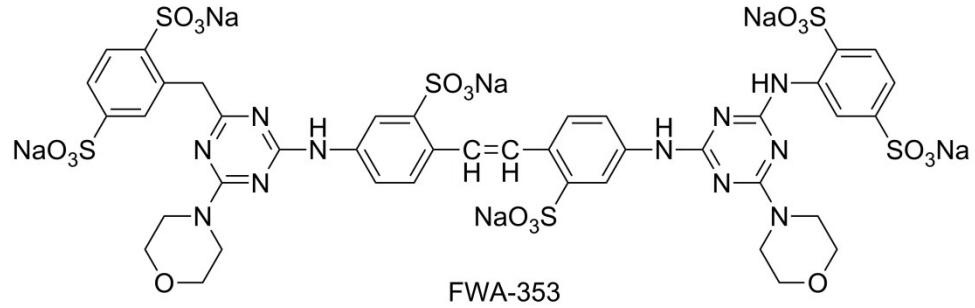


Fig.S3 Chemical structures of FWA-113, FWA-220, and FWA-353.

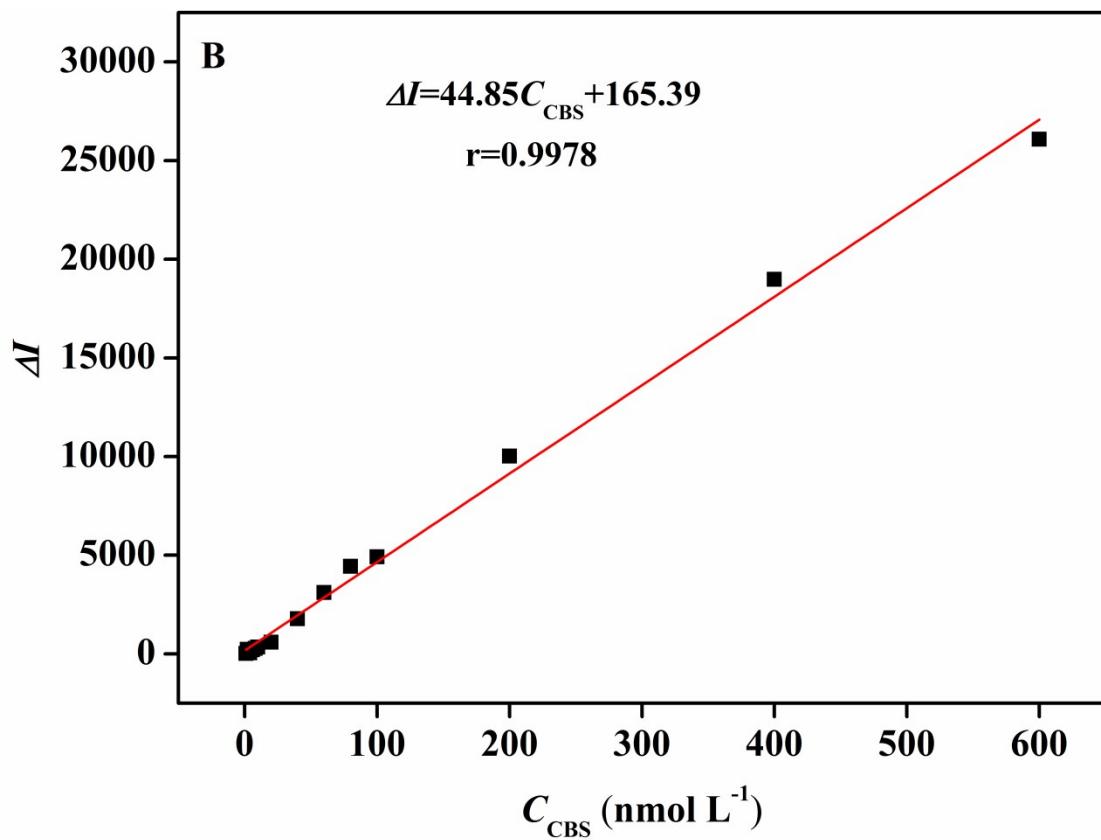


Fig.S4 Calibration curves.