

Supporting Information

Temporal Dynamic Photochromic Materials for Advanced Anticounterfeiting

Wei Tang,* Ping Liang, Xiaoxue Wang, Chen Zhang, Geng Wang, Chen Liang,

Mingxiang Guan*

*School of Information and Communication, Shenzhen Institute of Information
Technology, Shenzhen, 518172, China*

* Corresponding author: Tang Wei, E-mail: tangwei@szit.edu.cn; Guan Mingxiang,

E-mail: gmx2020@126.com

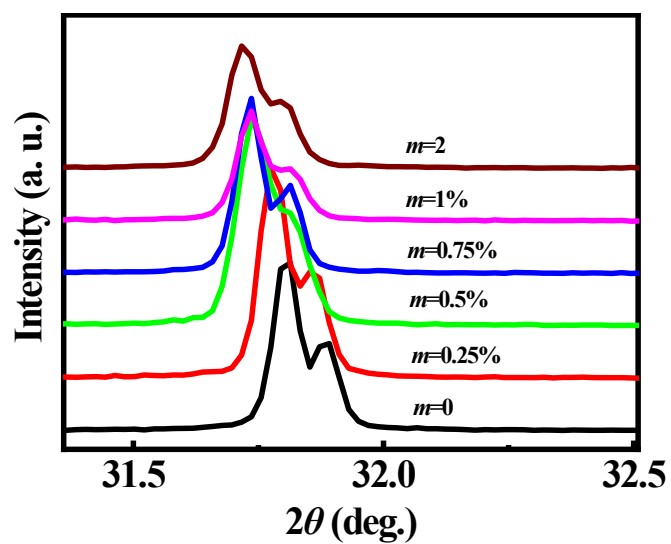


Fig. S1 Magnified region of XRD spectra in the 2θ range of $30.5\text{--}32.5^\circ$.

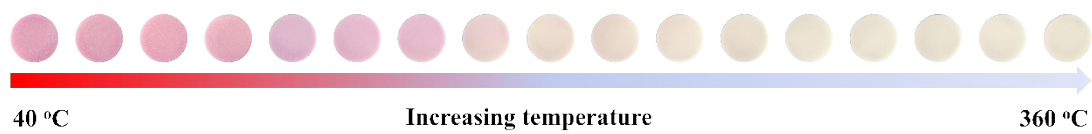


Fig. S2 The photographs of sample before and after heat treatment.

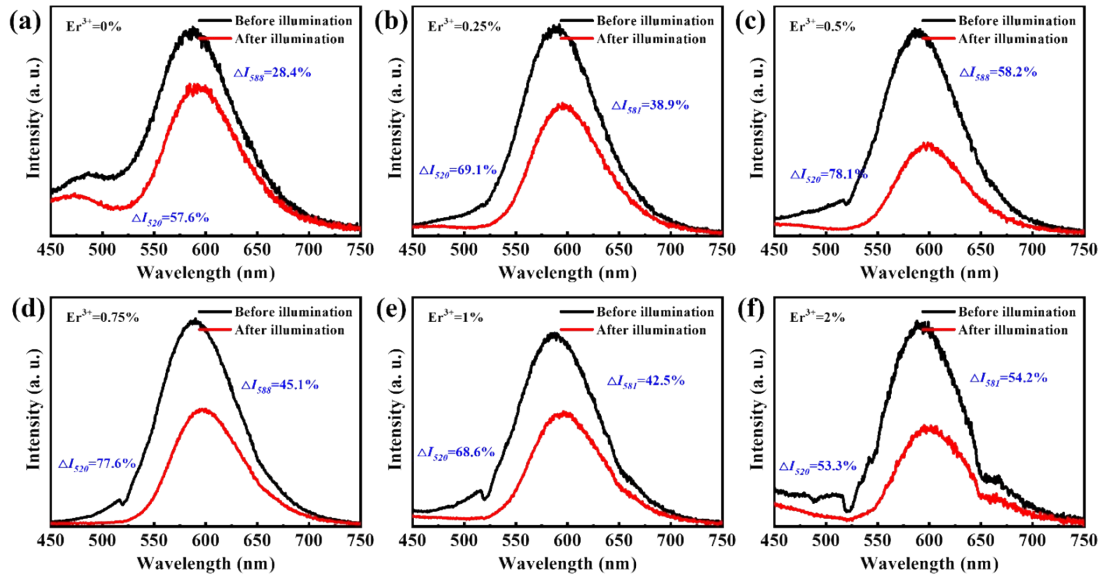


Fig. S3 The PL spectra of BMS: $m\text{Er}^{3+}$ before and after 330 nm illumination, (a) $m=0$, (b) $m=0.25\%$, (c) $m=0.5\%$, (d) $m=0.75\%$, (e) $m=1\%$, and (f) $m=2\%$.

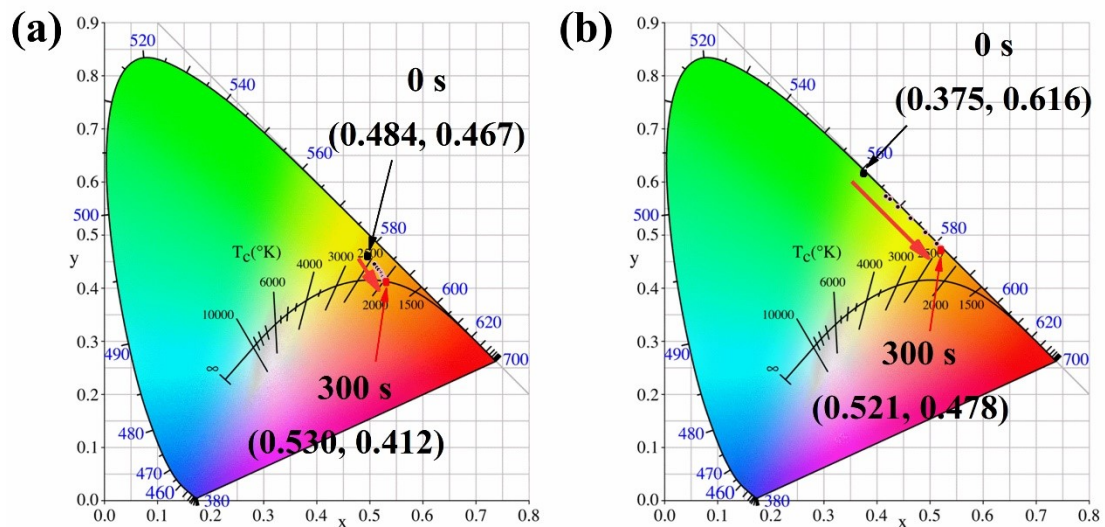


Fig. S4 (a) The CIE chromaticity coordinates of down-conversion, and (b) up-conversion performance.

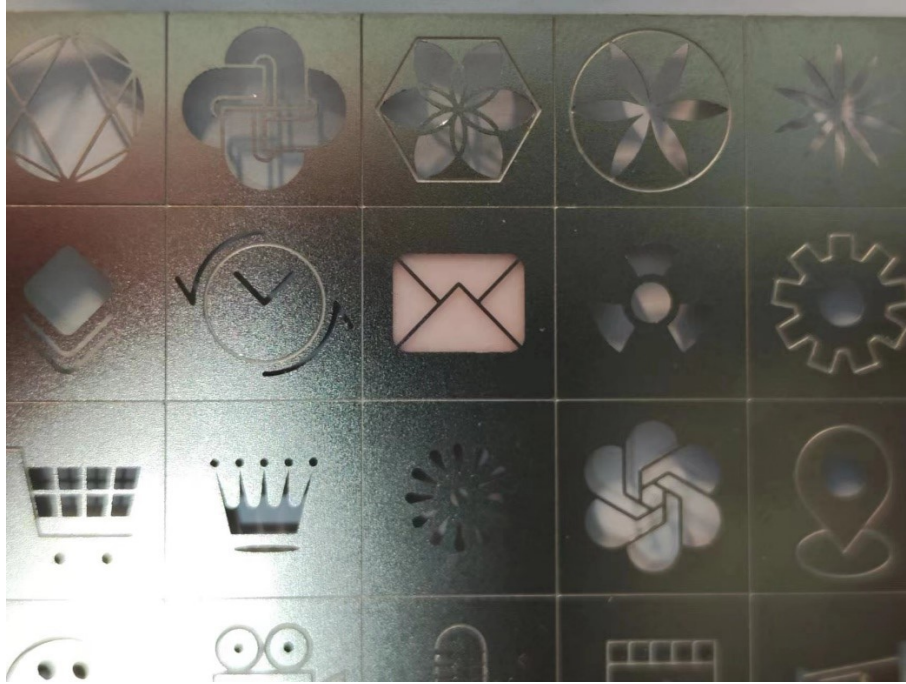


Fig. S5 The marks used in the printing.