Supporting Information

Light Driven Textile Sensors with the Potential Applications of UV Detection

Jian Zhang,^a Jie Zhou,^a Qingqing Zhou,^a Wen Wu,^a Huanxia Zhang,^a Xiangsong Lin,^a Qiulan Luo,^b Jianda Cao^{a*} and Hui Ma^{a*}

^aKey Laboratory of Yarn Materials Forming and Composite Processing Technology of Zhejiang Province; College of Material and Textile Engineering, Jiaxing University, Jiaxing 314001, China. ^bCollege of Fashion and Design, Jiaxing Nanhu University, Jiaxing 314001, Zhejiang, China.

*Corresponding author. Address: College of Material and Textile Engineering, Jiaxing University, Jiaxing, 314001, China. Tel: +86-573-83641175; Fax: +86-573-83640322. E-mail address: <u>dacao88@163.com;</u> mahone1136@163.com.



Figure S1. Raman spectra of GO/SP-0, GO/SP-10, and GO/SP-10 after UV radiation.



Figure S2. Wide XPS spectra of GO/SP-0, GO/SP-10.



Figure S3. XRD patterns of GO/SP-0 and GO/SP-10.



Figure S4. The Optimized structures, electronic and geometric characteristics in SP, cis-MC isomer, and trans-MC isomer.



Figure S5. Schematic illustration of trans-MC isomer connecting various RGO nanosheets.



Figure S6. The UV absorption spectra of spiropyran in dark.



Figure S7. The schematic diagram of testing the represent surface resistivity.