

## Supplementary materials:

### Detection of redox potential evolution during the initial stage of an acute wound based on a redox-sensitive SERS-active optical fiber

Shuyu Zhang,<sup>a</sup> Lingling Ji,<sup>b,c</sup> Kun Xu,<sup>a</sup> Xiulei Xiong,<sup>a</sup> Bingwei Ai,<sup>b\*</sup> Weiping Qian,<sup>a\*</sup> and Jian Dong<sup>a,d\*</sup>

<sup>a</sup> State Key Laboratory of of Digital Medical Engineering, School of Biological Science and Medical Engineering, Southeast University, Nanjing 210096, China. Email: [dongjian@seu.edu.cn](mailto:dongjian@seu.edu.cn)

<sup>b</sup> Department of Acupuncture-Moxibustion, Massage and Rehabilitation, Affiliated Hospital of Nanjing University of Chinese Medicine, Nanjing, 210029, China. E-mail: [aibingwei@163.com](mailto:aibingwei@163.com)

<sup>c</sup> Department of Acupuncture and Moxibustion, Suzhou Chinese Medicine Hospital Affiliated to Nanjing Chinese Medicine University, Suzhou 215003, China.

<sup>d</sup> Laboratory of Environment and Biosafety, Research Institute of Southeast University in Suzhou, Suzhou 215123, China.

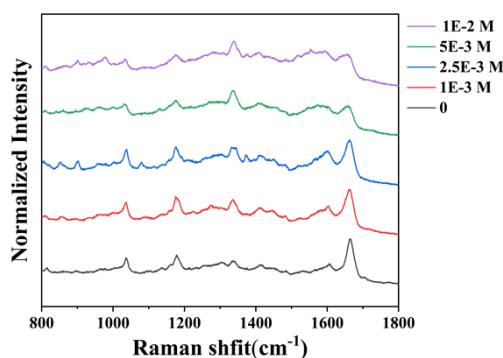


Fig. S1. The typical SERS spectra of Figure 4A (SERS-active optical fiber in different concentrations of sodium borohydride aqueous solutions for 10 min).

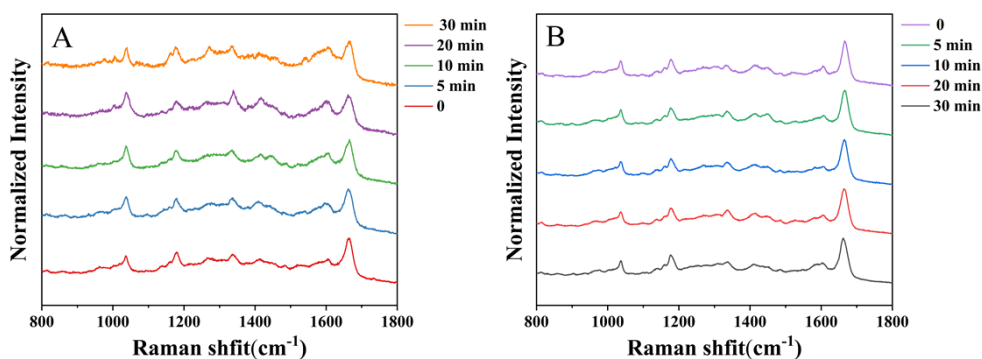


Fig. S2. The typical SERS spectra of Figure 4B in sodium borohydride aqueous solutions at different time (A) and in potassium permanganate aqueous solutions at different time (B).

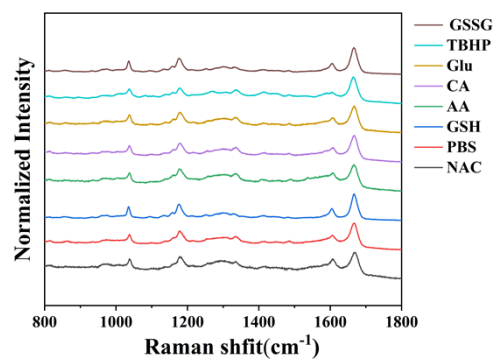


Fig. S3. The typical SERS spectra of Figure 5D (SERS-active optical fiber in different solutions of oxidants and reductants for 10 min).