## **Electronic Supplementary Information**

## Spontaneous Implantation of Gold Nanoparticles on Graphene Oxide for Salivary SERS Sensing

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**Fig. S1.** The TEM image of the GO-Au nanocomposite synthesized at 140°C with solution pH of 11.



**Fig. S2.** The relationship between Redox potential of GO and the pH value of reacted solution.



**Fig. S3.** ROC analysis of thirty-eight kinds of amino acids observed from our previous work <sup>1</sup>: (A) healthy persons and (B) GC patients.



**Fig. S4.** The concentration distinction of selected amino acids in saliva from GC patients and healthy persons.

## Reference

Y. Chen, S. Cheng, A. Zhang, J. Song, J. Chang, K. Wang, Y. Zhang, S. Li, H. Liu and G. Alfranca, *J Biomed Nanotechnol*, 2018, 14, 1773-1784.