Electronic Supplementary Material (ESI) for New Journal of Chemistry.

This journal is © The Royal Society of Chemistry and the Centre National de la Recherche Scientifique 2015

Supporting Information

Multiplexing determination of lung cancer biomarkers using electrochemical and surface-enhanced Raman spectroscopic techniques

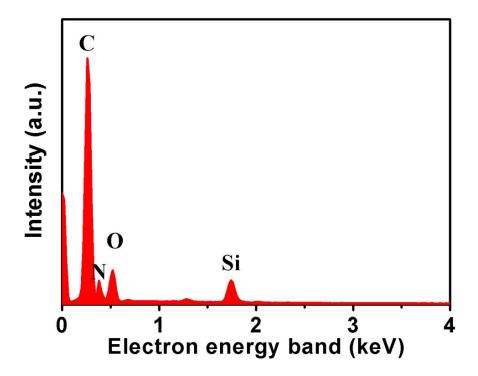
Wenbo Lu, Ying Wang, Xiaowei Cao, Li Li, Jian Dong, Weiping Qian*

State Key Laboratory of Bioelectronics, School of Biological Science and Medical

Engineering, Southeast University, Nanjing 210096, China

*Corresponding author: Tel: (+86)25-83795719; Fax: (+86)25-83795719. E-mail:

wqian@seu.edu.cn



 $\textbf{Figure S1} \ \text{The energy-dispersed spectrum of the AAR microspheres}. \\$

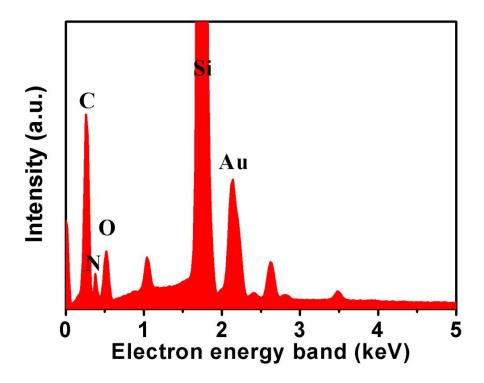


Figure S2 The chemical structure of the AuNPs/AAR microspheres.

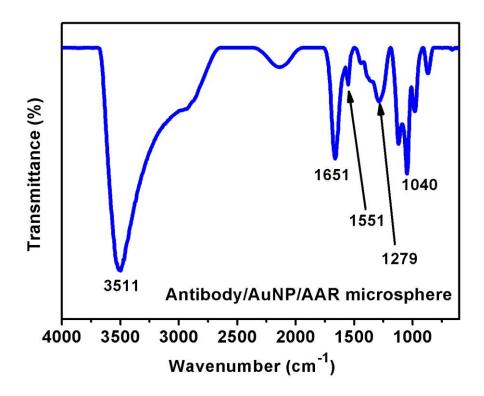


Figure S3 FT-IR spectra of the anti-CEA and anti-CK-19 decorated AuNPs/AAR microspheres.

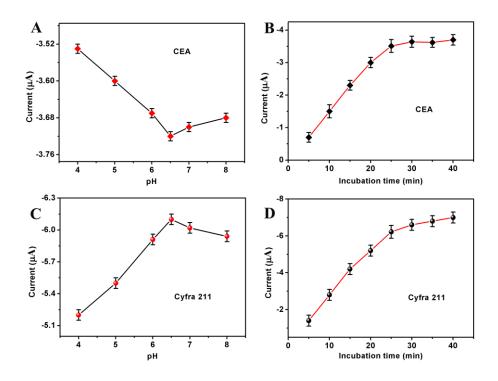


Figure S4 Effects of (A) pH of detection solution and (B) incubation time on SWV responses to 10 ng/mL of CEA at the modified electrode. Effects of (C) pH of detection solution and (D) incubation time on SWV responses to 10 ng/mL of CK-19 at the modified electrode.

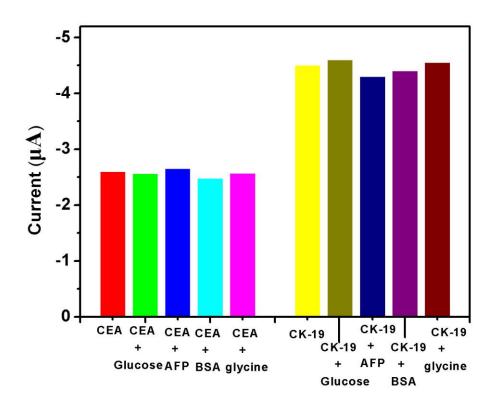


Figure S5 Current response of the immunosensor to the 10 ng/mL of CEA and CK-19 solution containing 50 ng/mL of interfering substances.