Electronic Supplementary Material (ESI) for Analyst

A portable microcolumn based on silver nanoparticle functionalized glass fibers and its SERS application

Hai-Xin Gu,[a,b] Da-Wei Li,[a] Lin Xue,[b] Yong-Feng Zhang[b] and Yi-Tao Long*[a]

[a] Key Laboratory for Advanced Materials and Department of Chemistry, East China University of Science and Technology, Shanghai 200237, P. R. China.

[b] Shanghai Fire Research Institute of Ministry of Public Security, Shanghai 200438, P. R. China.R. China

*Corresponding Author, Email: ytlong@ecust.edu.cn; Fax/Tel: +86-21-64250032.

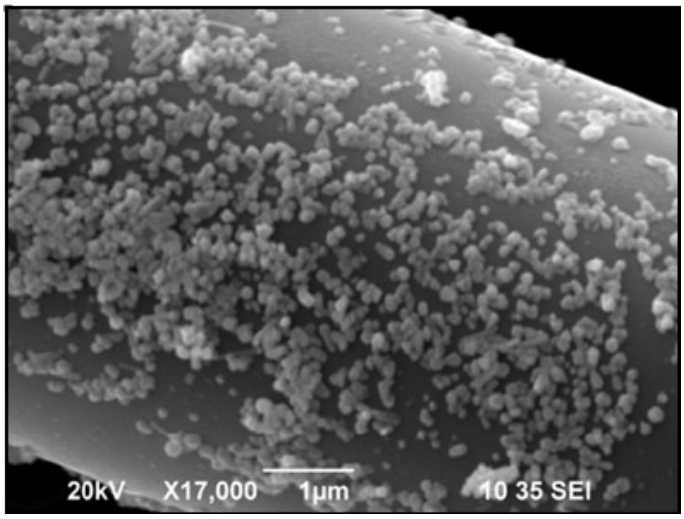

Fig. S1 SEM image of Ag NPs deposited on glass fiber with one time assembly.

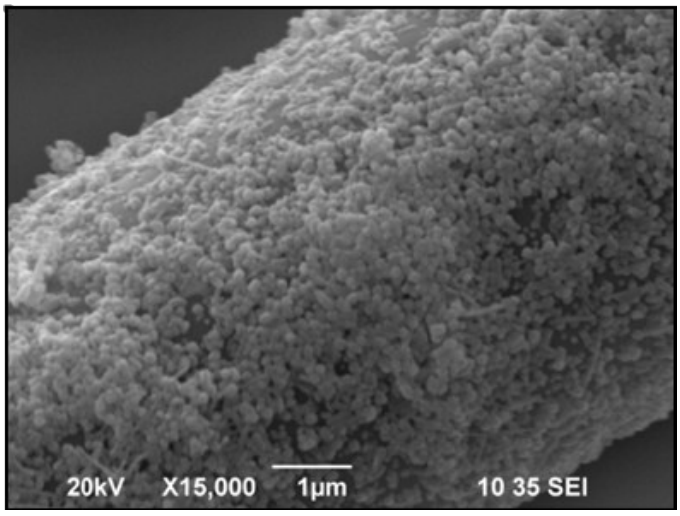

Fig. S2 SEM image of Ag NPs deposited on glass fiber with two times assembly.

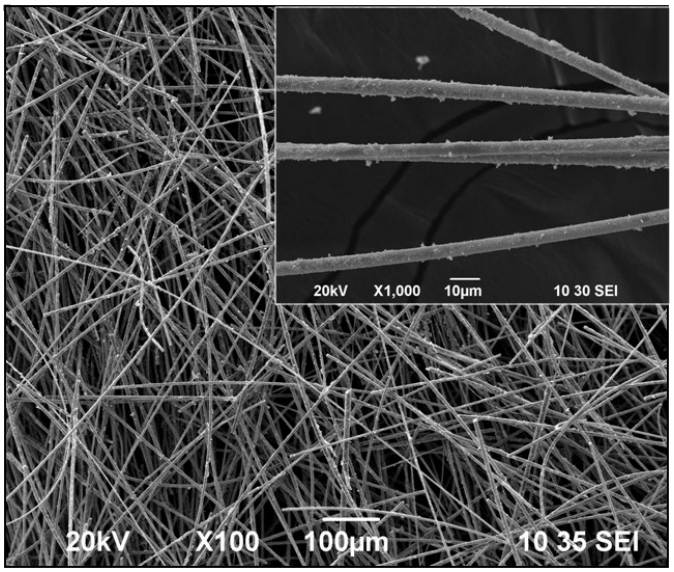

Fig. S3 SEM image and its magnified image (insert) of the prepared fibers.

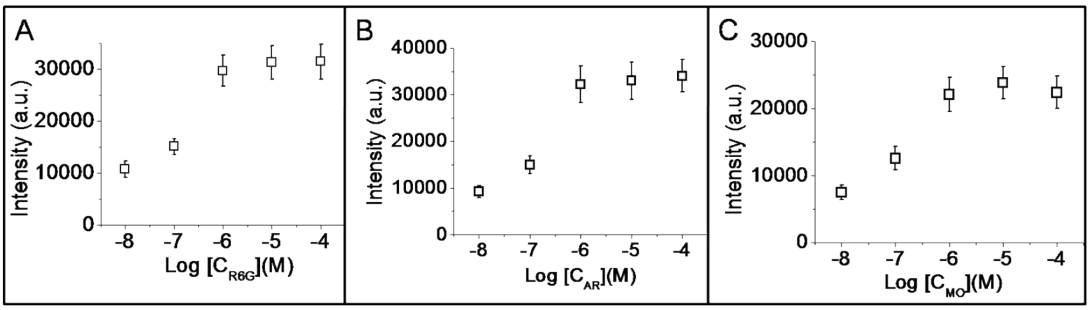

Fig. S4 The plot of signal intensities *vs* logarithmic concentrations of (A) R6G at the band of 1360 cm^{-1}, (B) AR at the band of 1245 cm^{-1}, and (C) MO at the band of 1143 cm^{-1}.

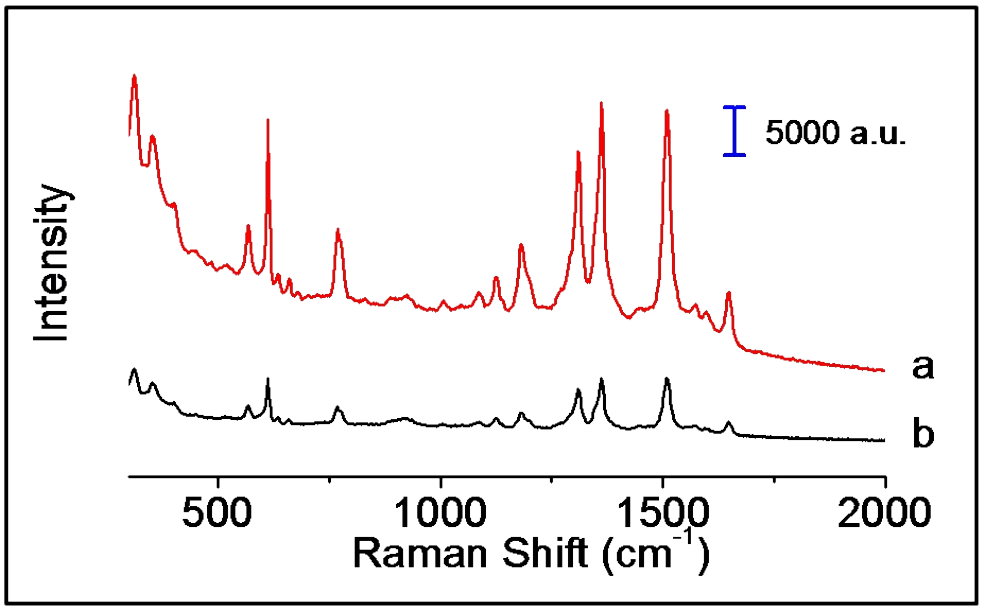

Fig. S5 SERS spectra of 10^{-6} M R6G obtained on Ag NPs-functionalized glass fibers integrated with a microcolumn (curve a) and placed on a planar carrier (curve b).