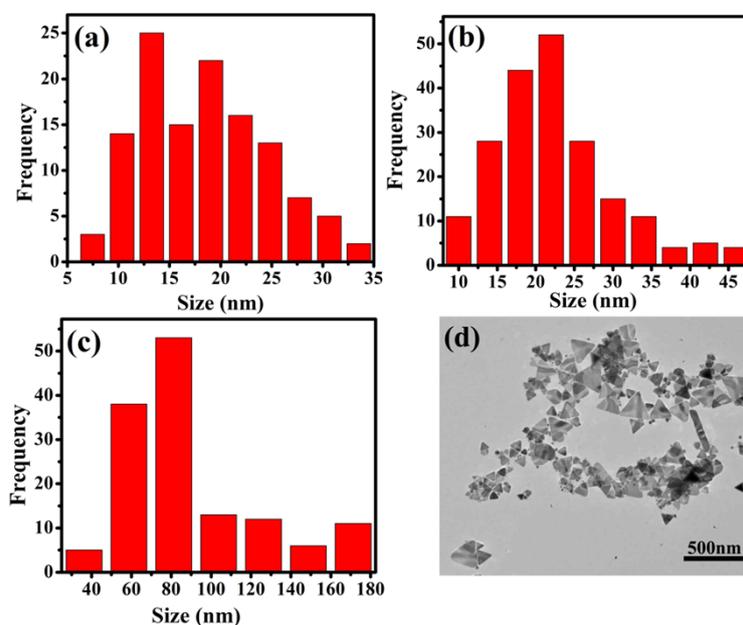


## Supporting Information

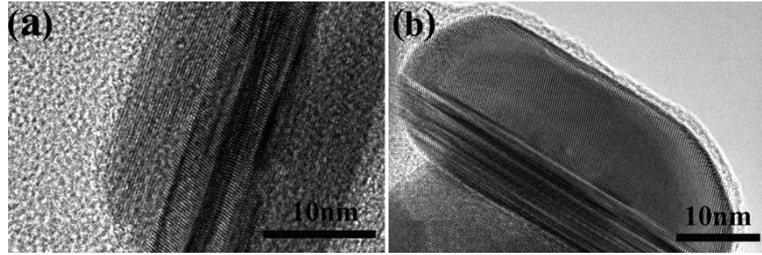
### Self-assembly of various silver nanocrystals on PmPD/PAN nanofibers as a high-performance 3D SERS substrate

*Peng Jia, Bing Cao, Jianqiang Wang, Jin Qu, Yuxuan Liu, Kai Pan\**

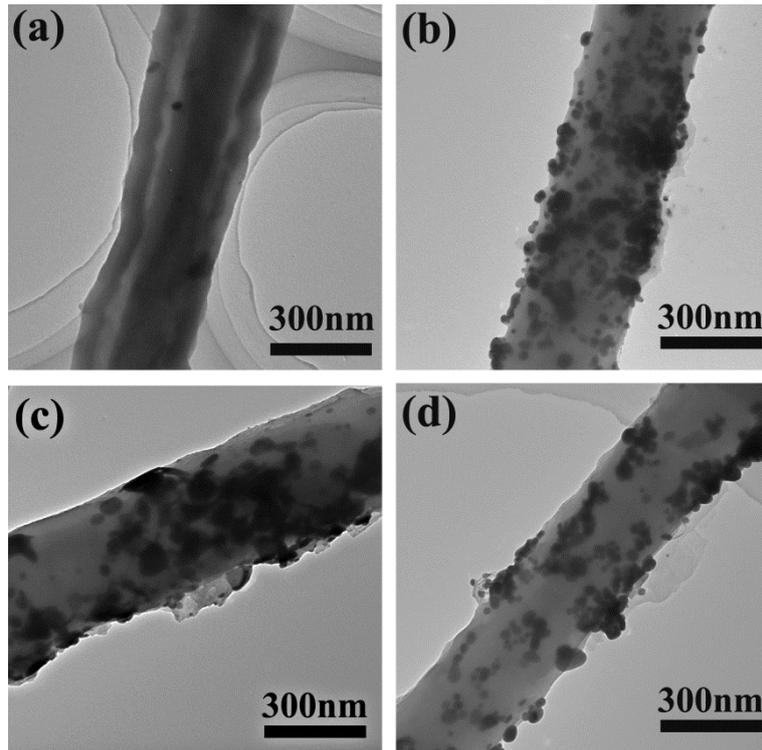


**Figure S1.** Histogram showing the corresponding particle size distribution of AgNPs (a), AgNTs (b) and AgNDs (c). TEM image of AgNTs for determining the size distribution and calculate the average particle size.

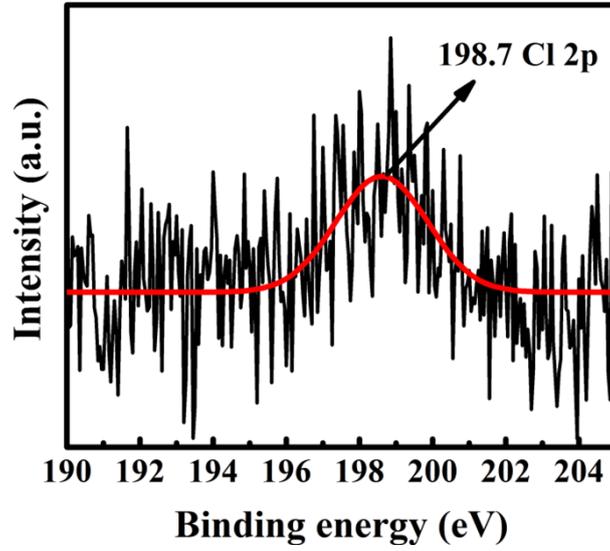
Over 120 particles in TEM image (Figure 2a) were analyzed using the image software to determine size distribution for AgNPs. Over 200 AgNTs from TEM image (Figure S1d) were analyzed to determine their size distribution and calculate the average particle size. More than 130 AgNDs in TEM image (Figure 2e) are analyzed to calculate the average size and distribution.



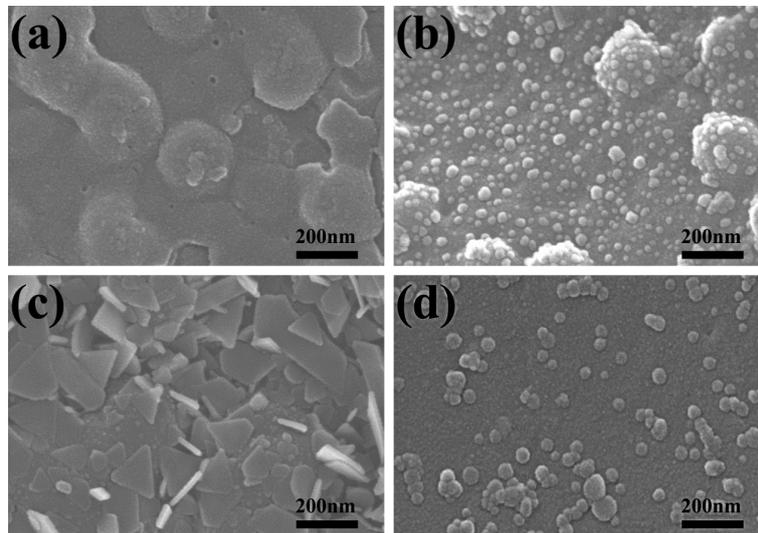
**Figure S2.** High-resolution TEM images of the AgNTs (a) and AgNDs (b) take from the side face.



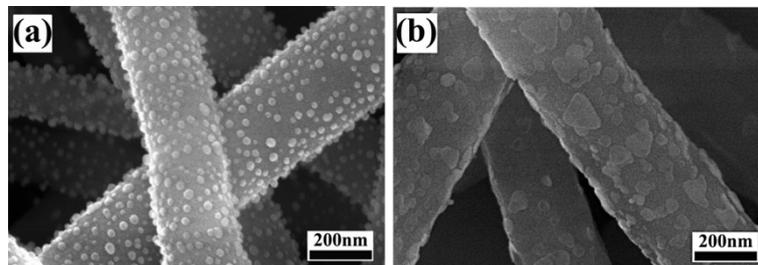
**Figure S3.** TEM images of the PAN/PmPD nanofiber (a), AgNPs@PAN/PmPD nanofiber (b), AgNTs@PAN/PmPD nanofiber and AgNDs@PAN/PmPD nanofiber (d).



**Figure S4.** Cl 2p spectra from XPS of AgNDs@PAN-g-PmPD nanofiber mat.



**Figure S5.** SEM images of PAN/PmPD (a), AgNPs@PAN/PmPD (b), AgNTs@PAN/PmPD (c) and AgNDs@PAN/PmPD (d) 2D film.



**Figure S6.** The SEM images of AgNPs@PAN/PmPD, AgNTs@PAN/PmPD nanofiber mat which have the same density comparing with AgNDs@PAN/PmPD nanofiber mat.