



## Supporting Information

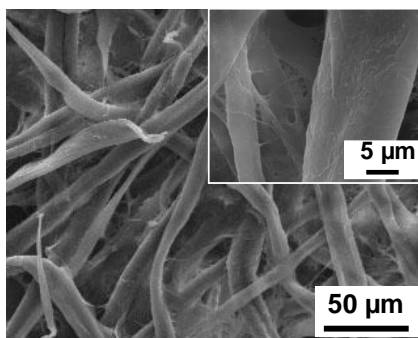
for

### **A silver-nanoparticle/cellulose-nanofiber composite as a highly effective substrate for surface-enhanced Raman spectroscopy**

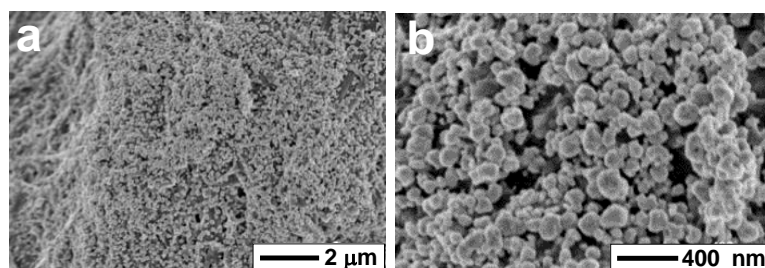
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*Beilstein J. Nanotechnol.* **2019**, *10*, 1270–1279. [doi:10.3762/bjnano.10.126](https://doi.org/10.3762/bjnano.10.126)

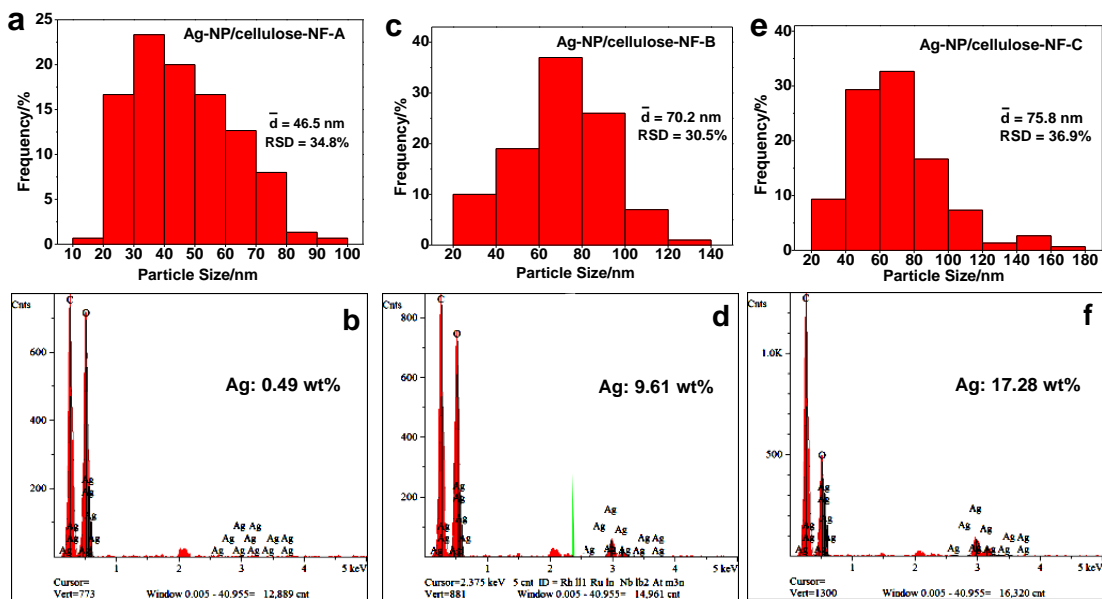
## Additional figures



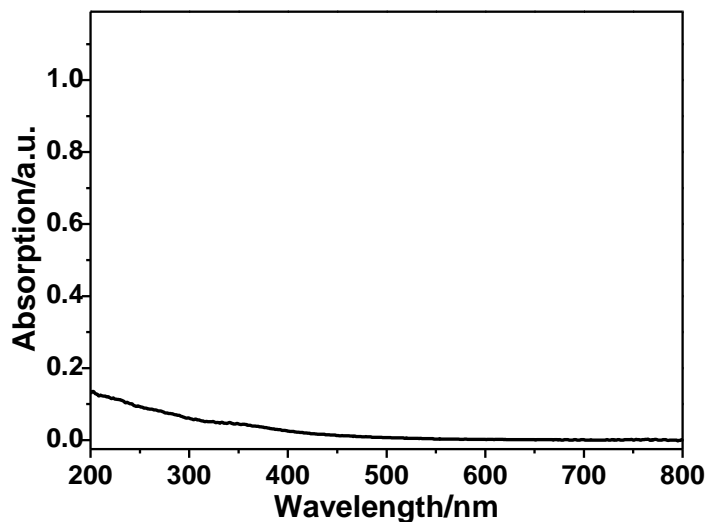
**Figure S1:** FE-SEM image of bare cellulose laboratory filter paper, showing microfiber assemblies, the inset represents an enlarged image of the microfibers.



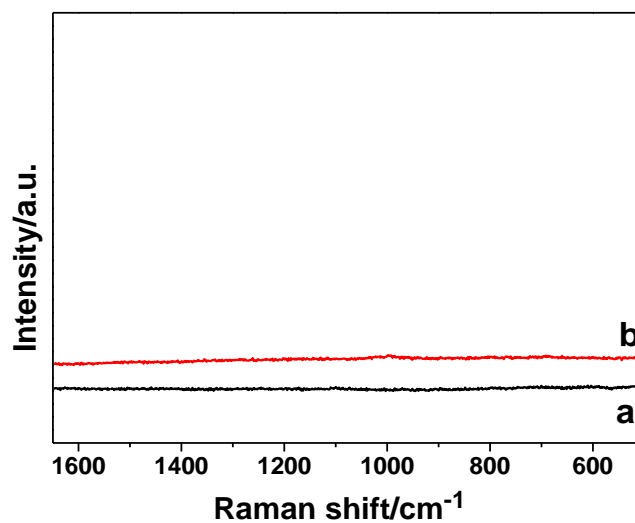
**Figure S2:** FE-SEM micrographs of the paper based SERS substrate Ag-NP/cellulose-NF-E which was fabricated with a reaction time of 10 minute.



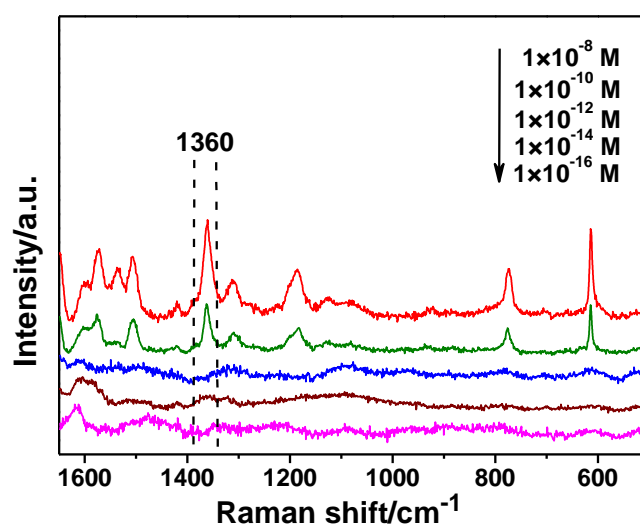
**Figure S3:** Histograms of the silver nanoparticle size distribution and energy dispersive X-ray (EDX) analysis reports of the paper based SERS substrates Ag-NP/cellulose-NF–A (a,b), –B (c,d), and –C (e,f), which were fabricated with reaction time of 2, 4, and 6 minutes, respectively.



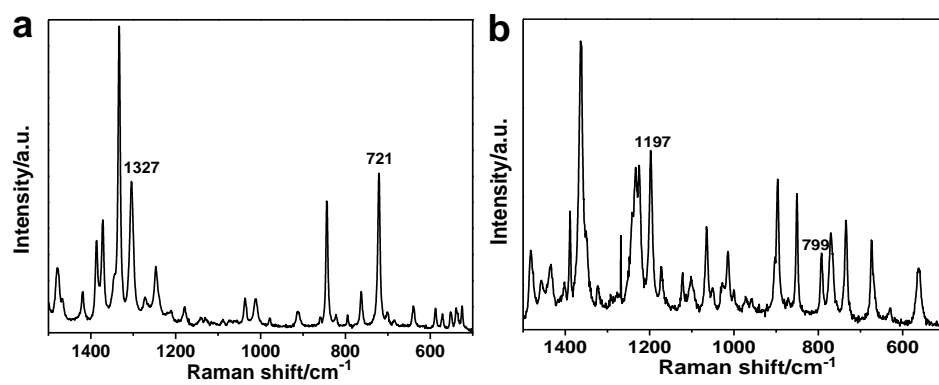
**Figure S4:** Diffuse reflectance UV–vis spectrum of bare filter paper.



**Figure S5:** Raman spectra of bare filter paper (a) and the paper based SERS substrate Ag-NP/cellulose-NF-C (b).



**Figure S6:** SERS spectra of R6G at various concentrations obtained by employing the paper based substrate Ag-NP/cellulose-NF-E.



**Figure S7:** Raman spectra of bulk adenosine (a) and thymidine (b) powders.