

# Supplementary Materials

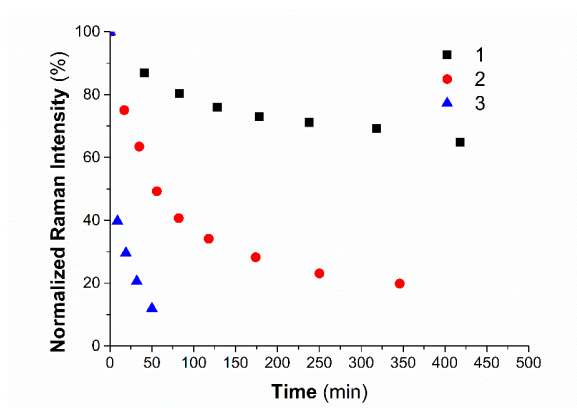
## Flexible Substrate of Cellulose Fiber/Structured Plasmonic Silver Nanoparticles Applied for Label-Free SERS Detection of Malathion

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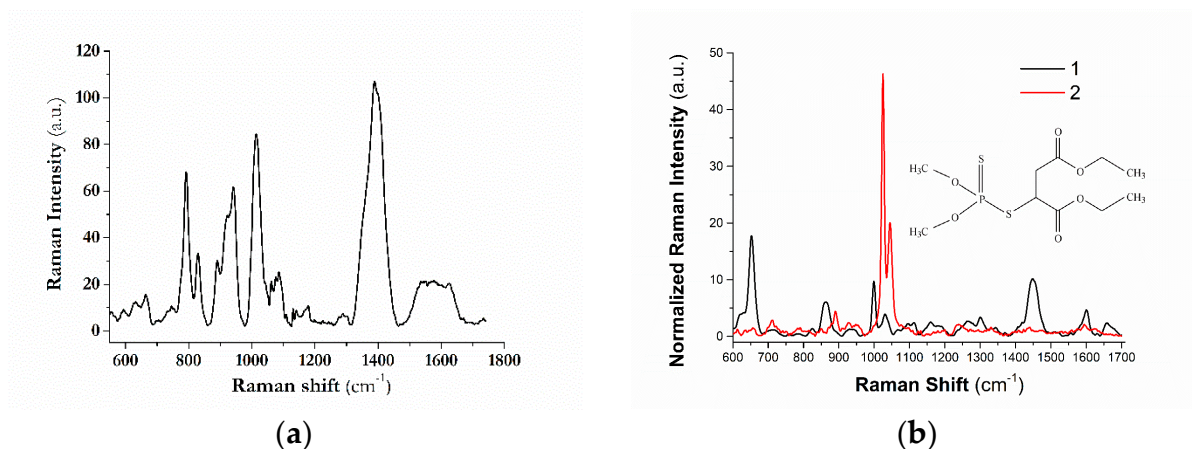
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**Figure S1.** Normalized Raman Intensity at  $1068\text{ cm}^{-1}$  versus excitation time using 10 mW (1), 25 mW (2) and 50 mW (3) laser power.



**Figure S2.** (a) Raman spectrum of blank rAgNS/AgNS-CF substrate. (b) Raman spectrum of 1g/L malathion, measured on a Raman Grade  $\text{CaF}_2$  window (1). Raman spectrum of 1 mg/L malathion, measured on the rAgNS/AgNS-CF substrate (2). Insert: the structure of malathion.