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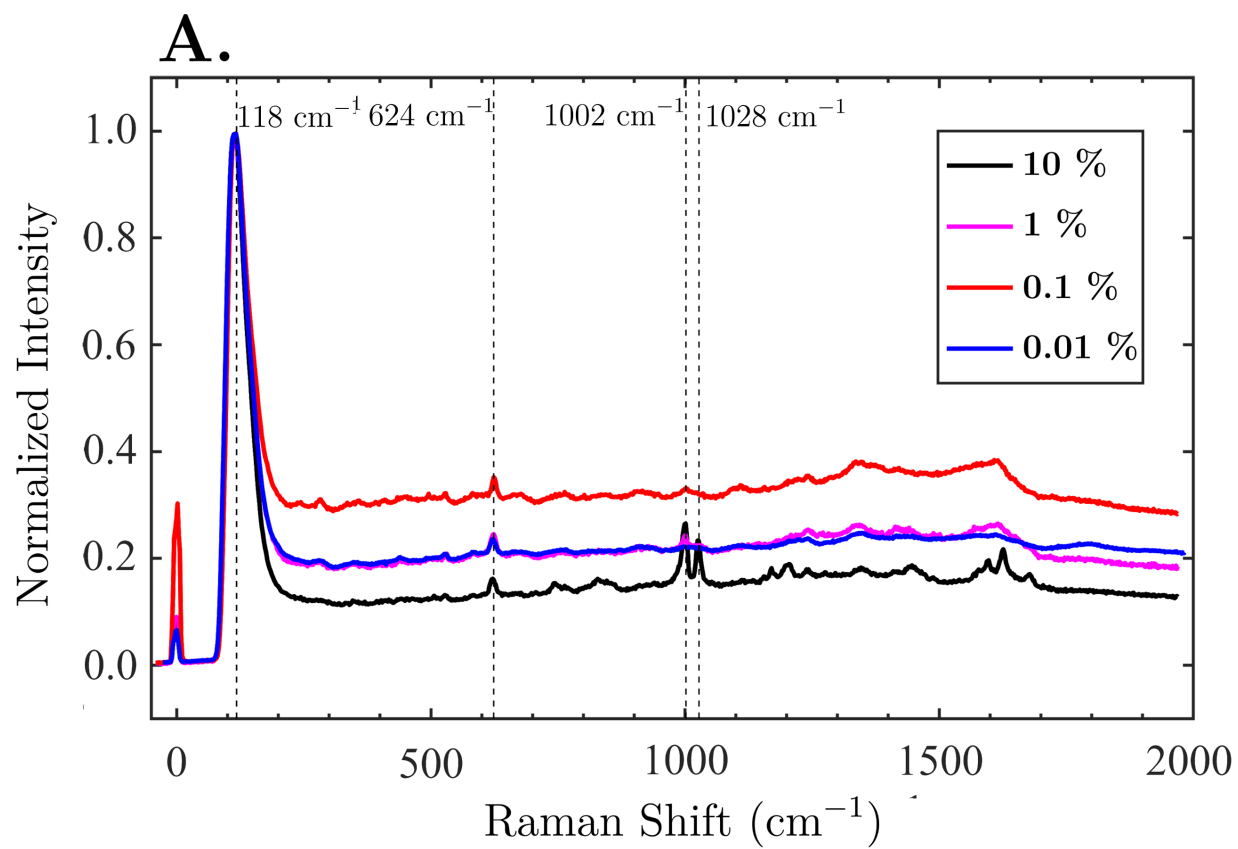
Microfluidic Analysis of Fentanyl-laced Heroin Samples by Surface-enhanced Raman Spectroscopy in a Hydrophobic Medium

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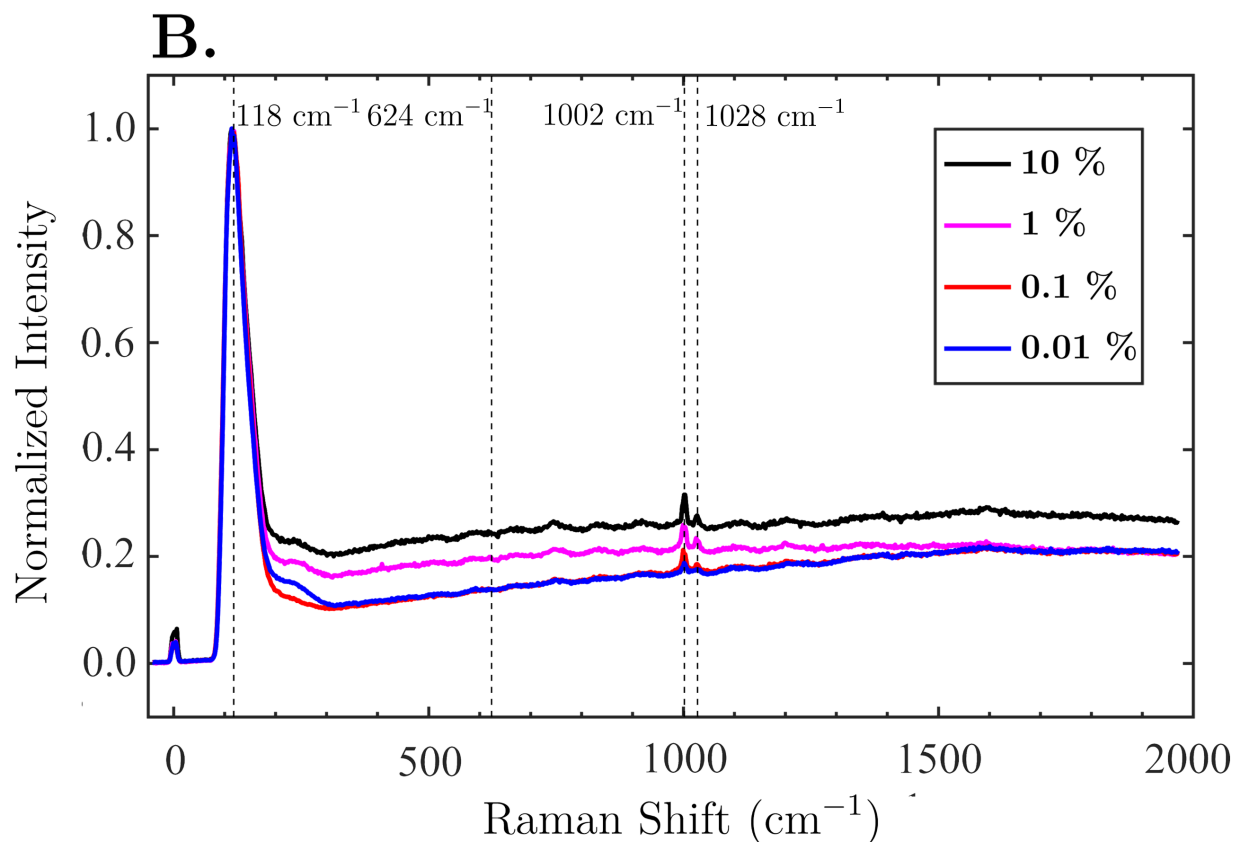


Figure S1. Representative SERS spectra normalized by the intensity of the Ag-I band at 118 cm^{-1} , before extraction (A) and after extraction (B). The spectra are acquired using the microfluidic device and using the experimental procedure described in the main text of the publication. Percentages are the concentration ratios of fentanyl to heroin in the samples. Intensity of the band at 118 cm^{-1} correlates well with the degree of aggregation of the SERS-active colloid. Hence, after normalization of the spectra by the 118 cm^{-1} band, the intensity of the relevant bands such as 624 cm^{-1} (heroin), 1002 cm^{-1} and 1028 cm^{-1} (fentanyl) could be correlated to the concentrations of the analytes in the solution, enabling quantitative analysis.