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Flexible Superhydrophobic SERS Substrates Fabricated by *In Situ* Reduction of Ag on Femtosecond Laser-Written Hierarchical Surfaces

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Highlights

- Self-cleaning surfaces are fabricated onto soft elastomer from femtosecond laser patterned master structures via softlithography
- Flexible surface enhanced Raman substrates made via in-situ reduction of Ag nanoparticles onto the hierarchal micro-nanoscale structures
- The synergic of concentration enrichment and plasmonic enhancement enabled the femtomolar detection of analyte molecule via fiber based surface enhanced Raman spectroscopy

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