

## Enhanced Surface Functionalization of 2D Molybdenum/Tin Chalcogenide Nanostructures for Effective SERS Detection of *Escherichia coli*

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### Supplementary data

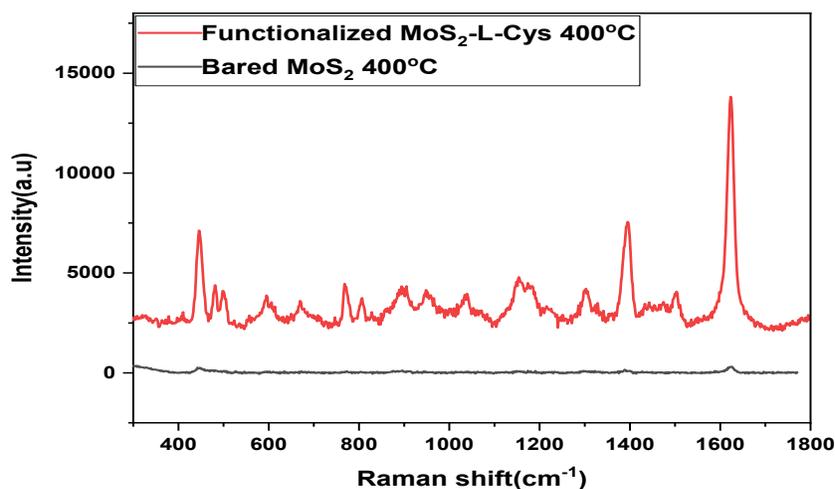


Figure S1. The Comparative Raman spectrum of SERs enhancement of beard particles of MoS<sub>2</sub> and functionalized particles of MoS<sub>2</sub>-L-Cys by using MB annealed at 400°C.

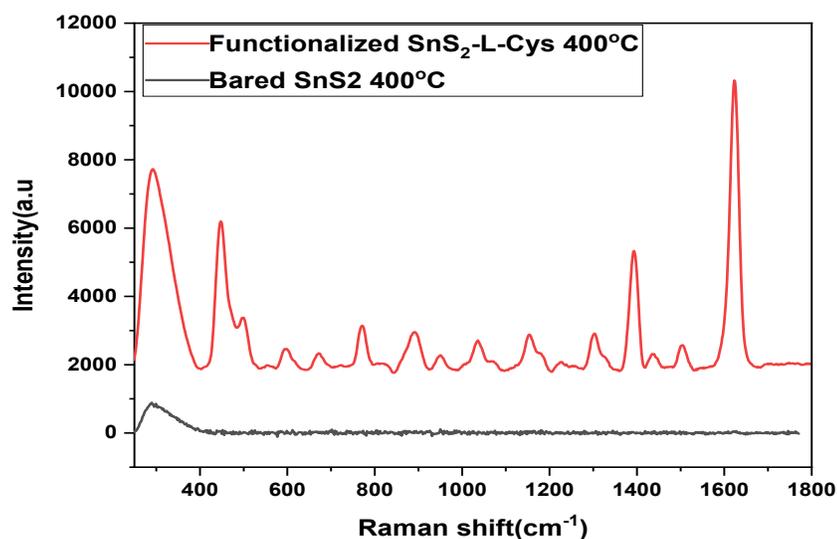


Figure S2. The Comparative Raman spectrum of SERs enhancement of beard particles of SnS<sub>2</sub> and functionalized particles of SnS<sub>2</sub>-L-Cys by using MB annealed at 400°C.

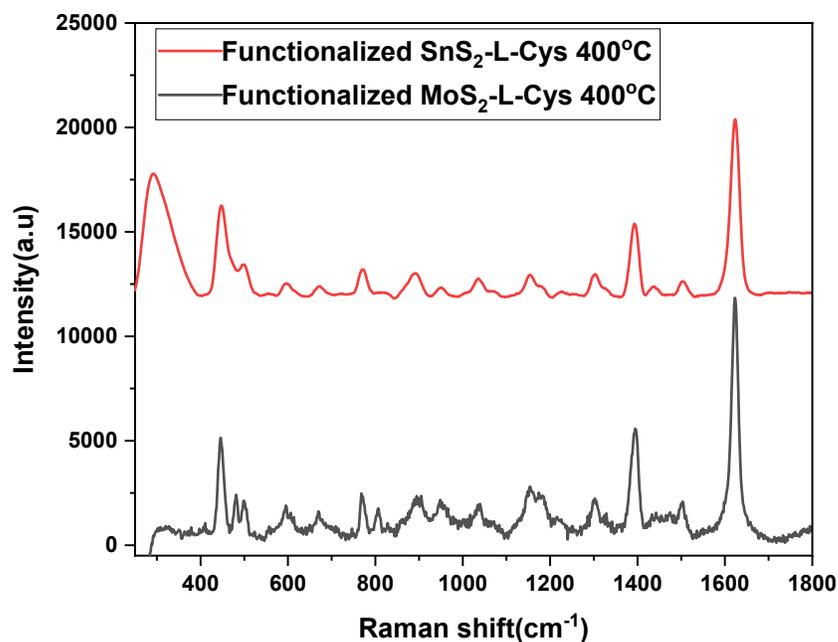


Figure S3. The Comparative Raman spectrum of SERs enhancement of functionalized particles of MoS<sub>2</sub>-L-Cys and SnS<sub>2</sub>-L-Cys by using MB annealed at 400°C.