Electronic Supplementary Material (ESI) for Analyst

Amide I vibrational mode suppression in surface (SERS) and tip (TERS) enhanced Raman spectra of protein specimens

Dmitry Kurouski,[a] Thomas Postiglione,[a] Tanja Deckert-Gaudig,[b] Volker Deckert[b,c] and Igor K. Lednev[b]*

Supporting Information

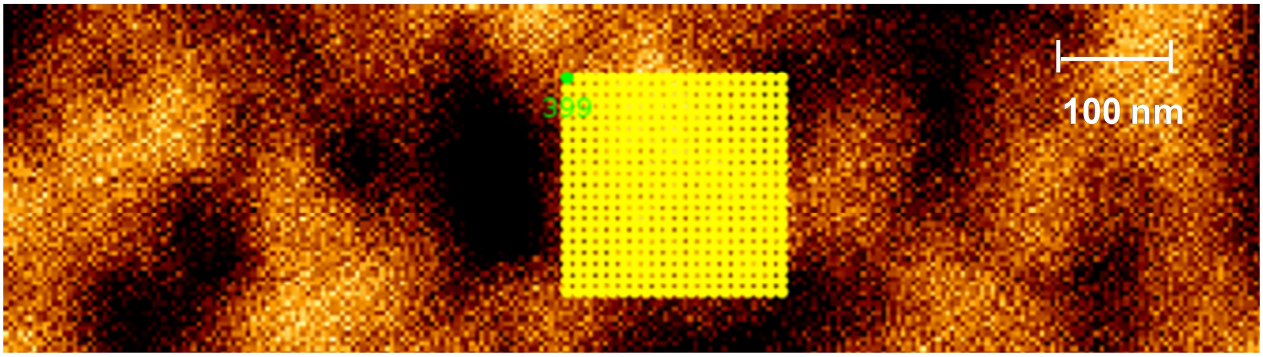

Fig. S1. AFM image of insulin protein deposition on the glass slide and spots of TERS spectra acquisition (yellow dots).

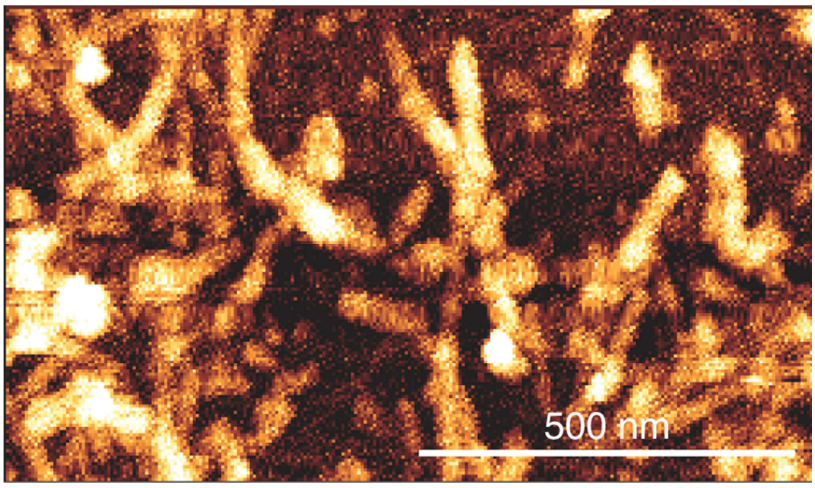

Fig. S2. AFM image of insulin fibril topology.

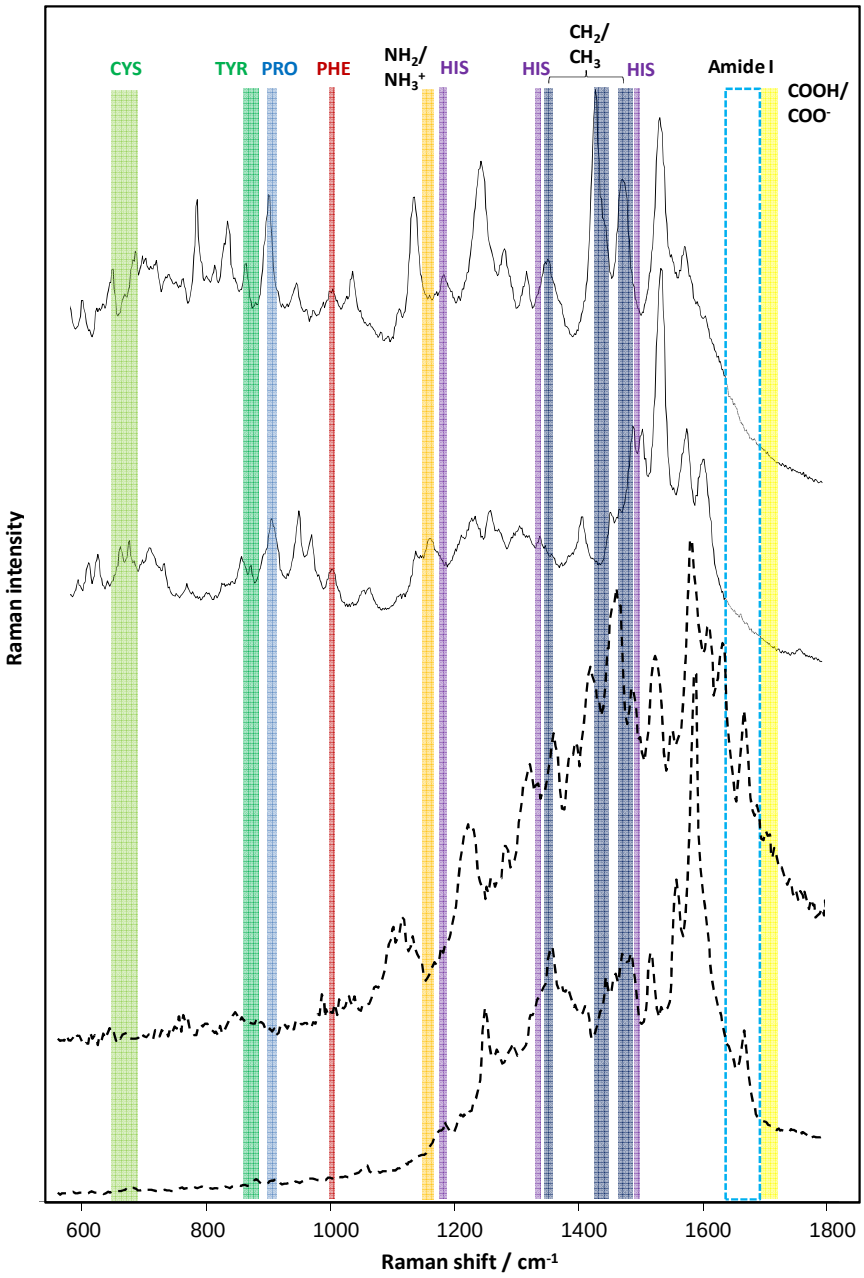

Fig. S3. Selected SERS spectra of insulin fibrils with suppressed amide I bands (—) and with evident amide I bands (---). For SERS, a solution of insulin fibrils was mixed with gold nano-particles and excitation laser light with λ = 785 nm was used.

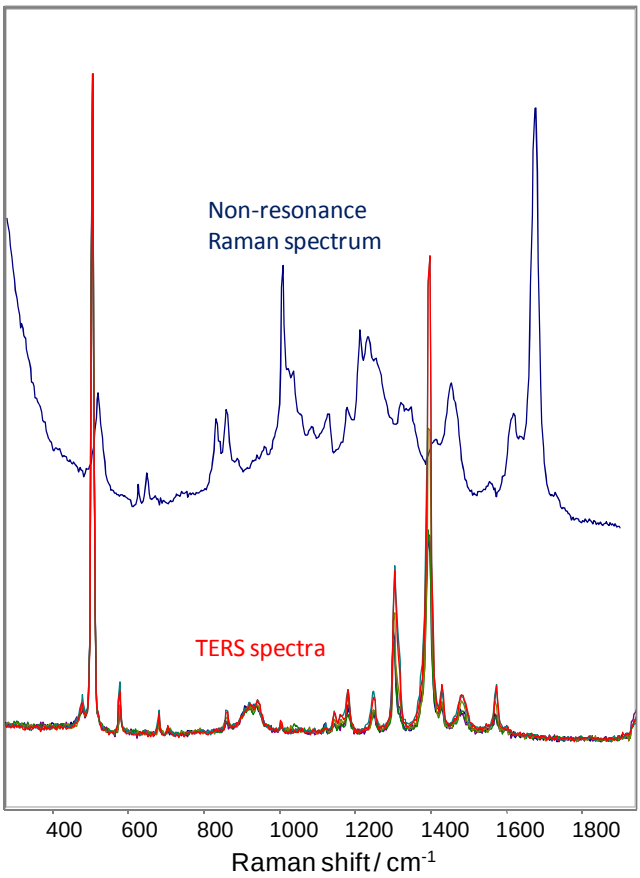

Fig. S4. TERS spectra (bottom) and normal Raman spectrum (blue, top) collected from insulin protein. Laser excitation wavelength is 532 nm.