

Supplementary Material:

***In vitro* Monitoring of Time and Dose Dependent Cytotoxicity of Aminated Nanoparticles using Raman Spectroscopy**

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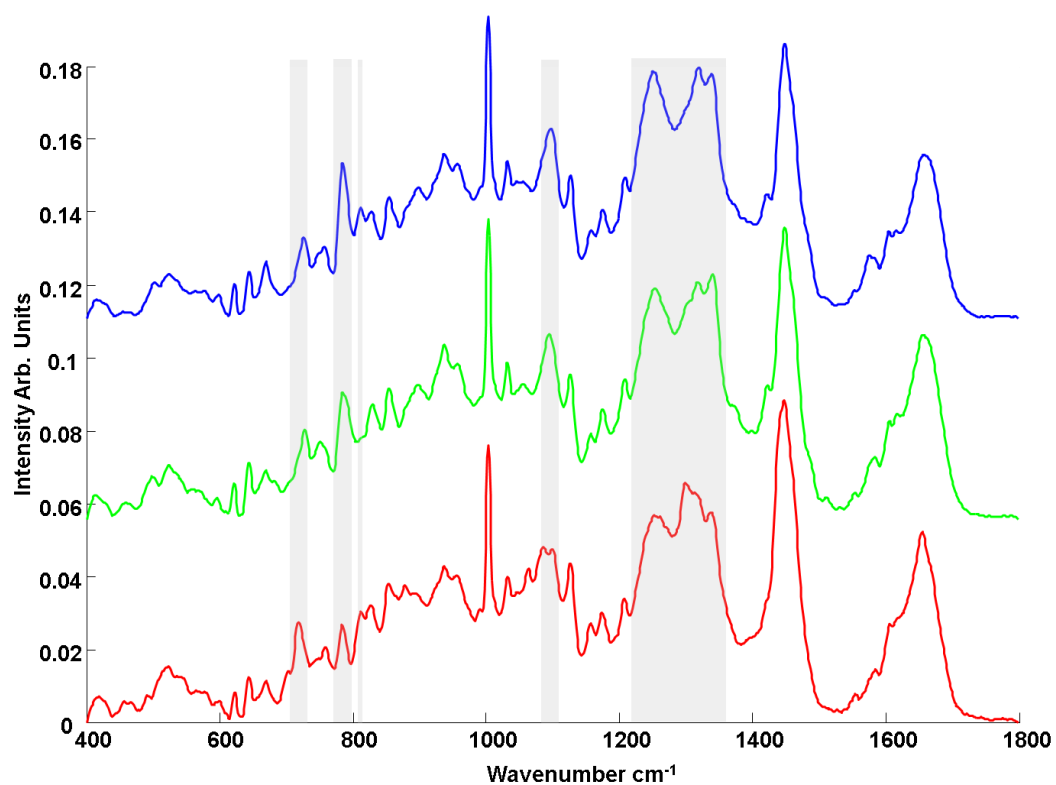


Figure S1. Mean spectra of different cellular regions of unexposed cells. Nucleolus, nucleus and cytoplasm are indicated by blue, green and red, respectively. The differences in molecular composition (nucleic acids, proteins and lipids) of the regions are highlighted.

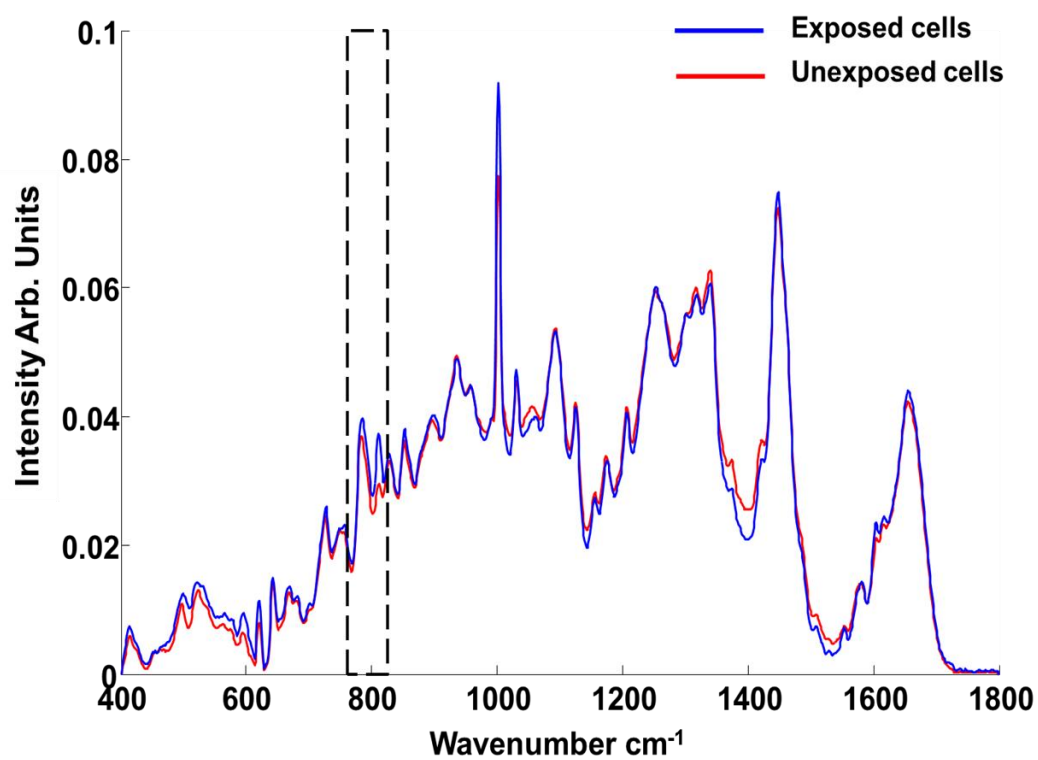


Figure S2. Mean spectra of cytoplasm of exposed cells (blue) and unexposed cells (red). The 785 and 810 cm^{-1} region is indicated with dashed outline.

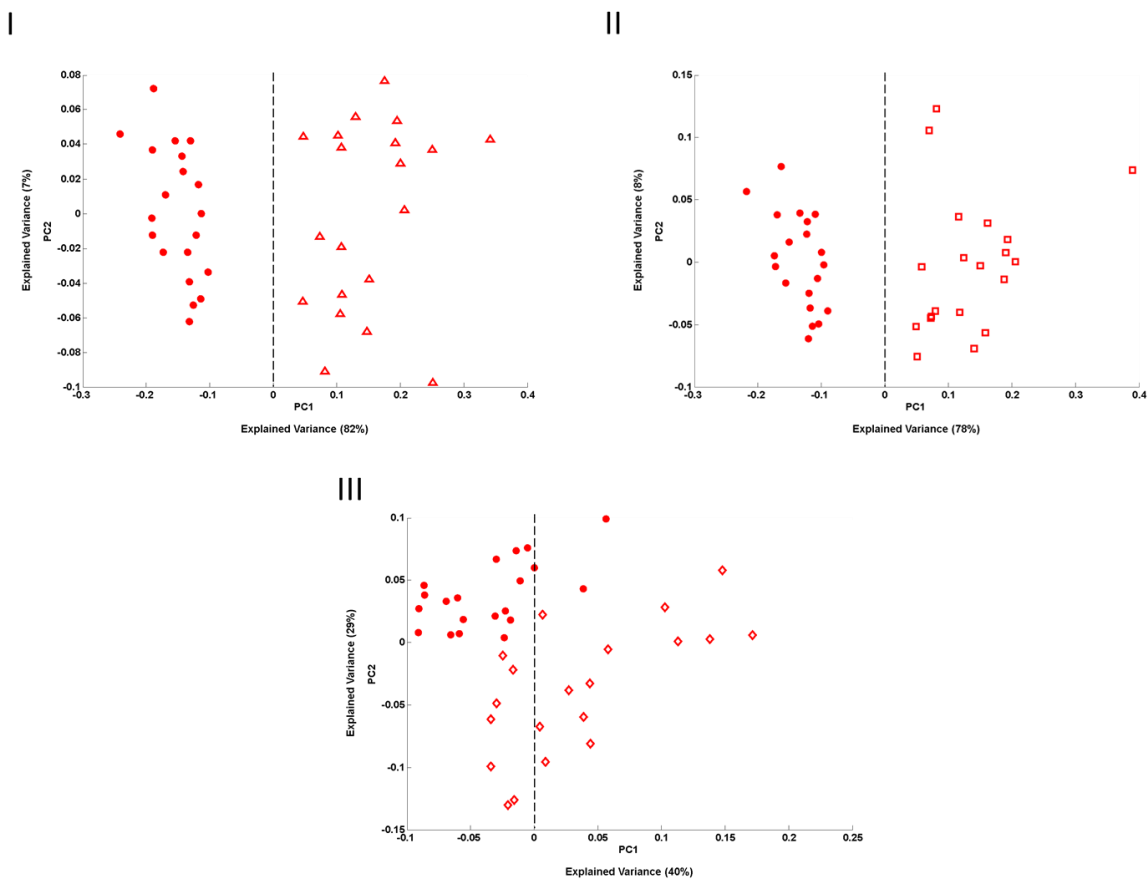


Figure S3. Scatter plot of the PCA of spectra corresponding to cytoplasm of the unexposed cells (control) and cells exposed to PS-NH₂ for 8hr. The code for different concentrations from 2.5 to 10 μ M (I-III) is, rectangle (I), square (II) and diamond (III), respectively. Unexposed cells and exposed cells are indicated by close circles and open circles, respectively.

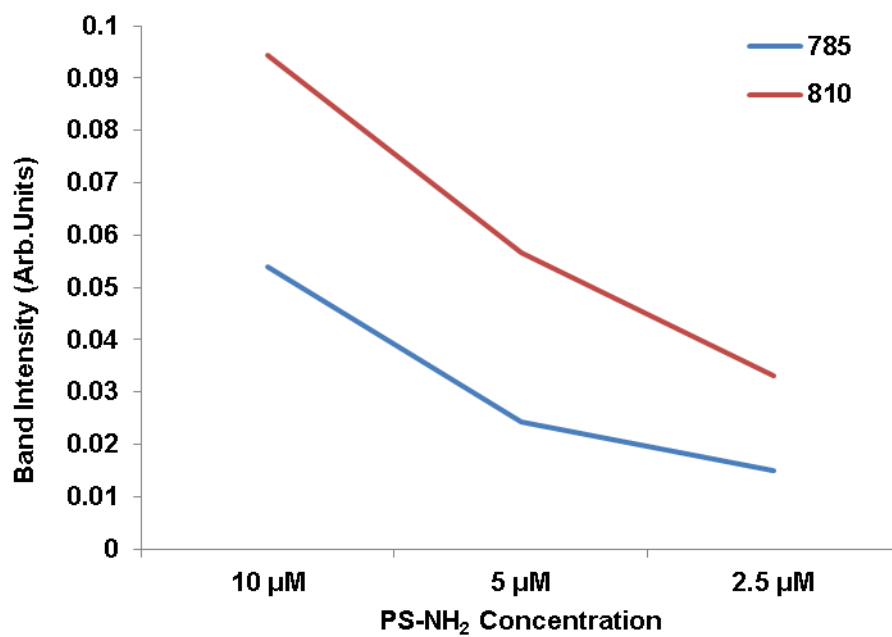


Figure S4. Raman intensities of the 785 cm⁻¹ (blue) and 810 cm⁻¹ (red) bands as a function of dose.

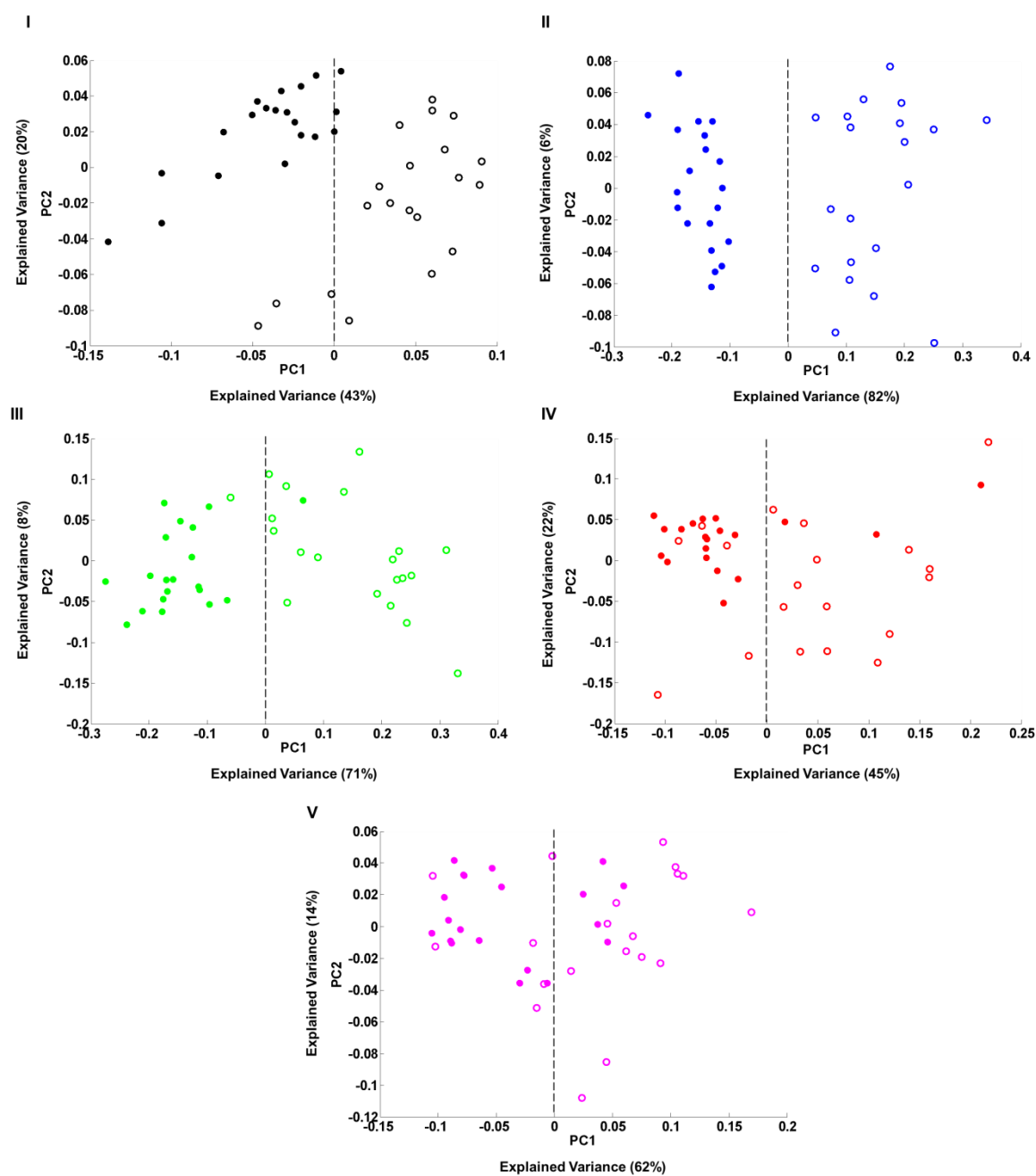


Figure S5. Scatter plot of the PCA of spectra corresponding to cytoplasm of the unexposed cells (control) and PS-NH₂ exposed cells. The colour code for different exposure times from 4 to 48 (I-V) is, black (I), blue (II), green (III), red (IV) and magenta (V), respectively. Unexposed cells and exposed cells are indicated by close circles and open circles, respectively.