

Effect of the indentation load on the Raman spectra of the InP crystal

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Supporting Figures

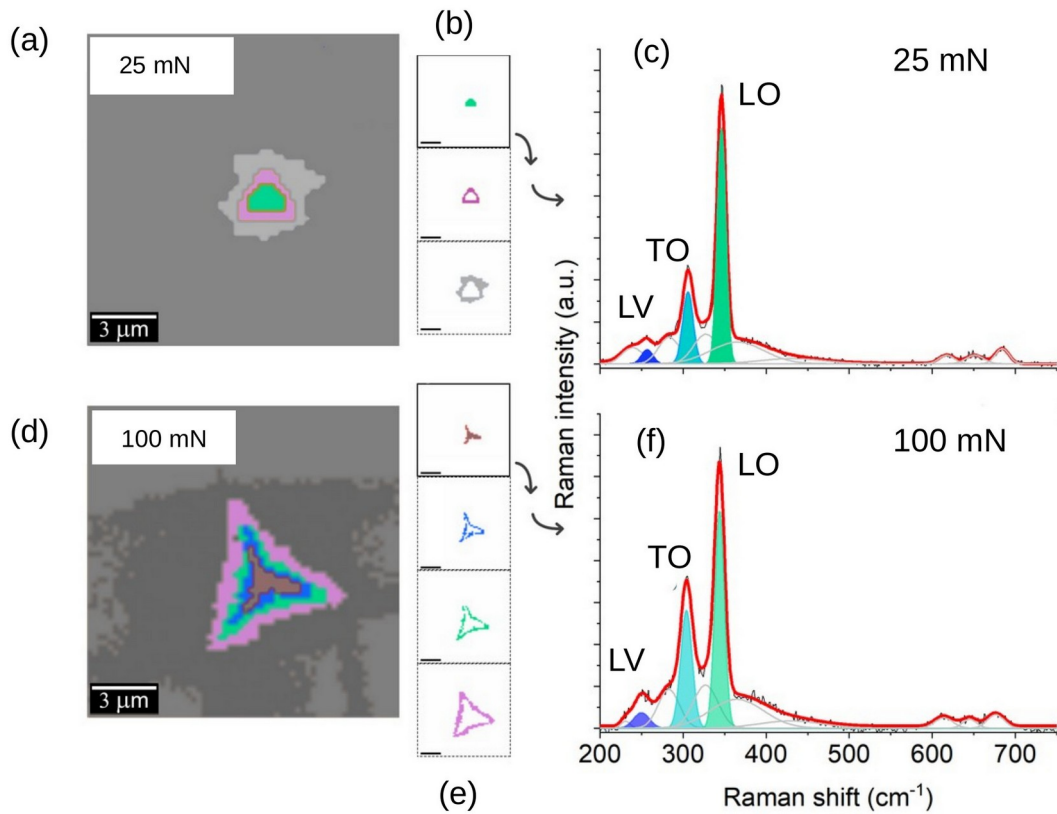


Figure S1 Exemplary K-means cluster analysis was performed on the base of Raman imaging around the S-doped InP crystal place indented at 25 mN and 100 mN loads. **(a,d)** An image of structural changes around the indents. **(b,e)** Individual clusters show the structural changes after indentation. **(c,f)** Raman spectra were obtained on the base of the signal exported from the most central fragment of the indent (arrows). Raman spectra were fitted using the Lorentz-Gauss function, while the color-highlighted peaks reveal the main LV, TO, and LO modes.

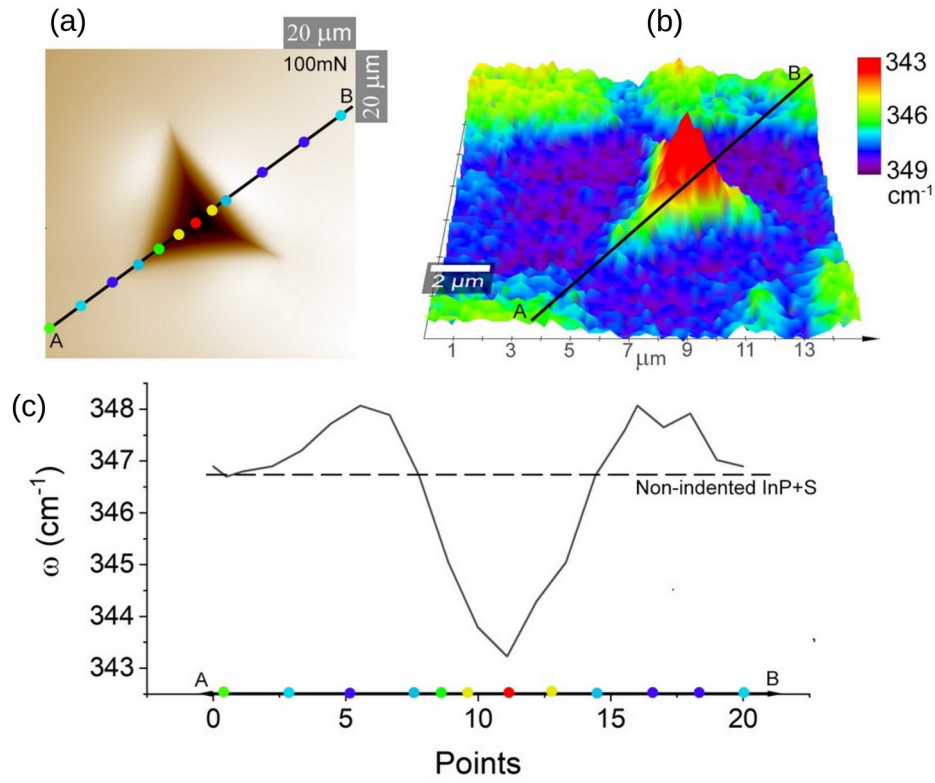


Figure S2 (a) The schematic image of the indent with cross-section and color highlighted points among the cross-section involving the information about the position of the LO mode. (b) Color-highlighted 3D Raman maps with a color corresponding to the position of the LO mode. (c) Cross-section profile through the indent prepared on the base of the position of LO mode. Data presented exemplary case of the S-doped InP indented with the maximum load 100mN.