Corrigendum: Low and high density InAs nanowires on Si(001) and their Raman imaging (2013 Semicond. Sci. Technol. 28 015025)

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Raman study of long InAs NW grown by MOCVD in self catalyst assisted method is shown in figure 3 of the original article. It shows a strong peak at ~240 cm⁻¹. We had noted this peak as LO phonon of InAs as per literature survey available at that time. However, our recent study on the similar NWs (Suparna Pal et al 2014 Appl. Phys. Lett. 105 012110) shows that the Raman mode which appears at that frequency (240 cm⁻¹) with large intensity at power density >100 kW cm⁻² is basically InAs-oxide related peak (InAsO₄). In our recent finding we observed that the laser induced oxidation process of InAs occurs on the surface of the nanowire above a particular laser power density. The threshold power itself depends on the diameter of the wire. In the light of our present findings we believe that the 240 cm⁻¹ peak shown in figure 3 should be attributed to InAsO₄ and not the InAs LO phonon. Further, systematic power dependent Raman study carried out on similar NWs with very low laser power density shows TO phonon exclusively from the center of the wire suggesting that growth of these NWs is not epitaxial with the Si(001) substrate.