Electronic Supplementary Material (ESI) for Nanoscale.

Supplementary Information

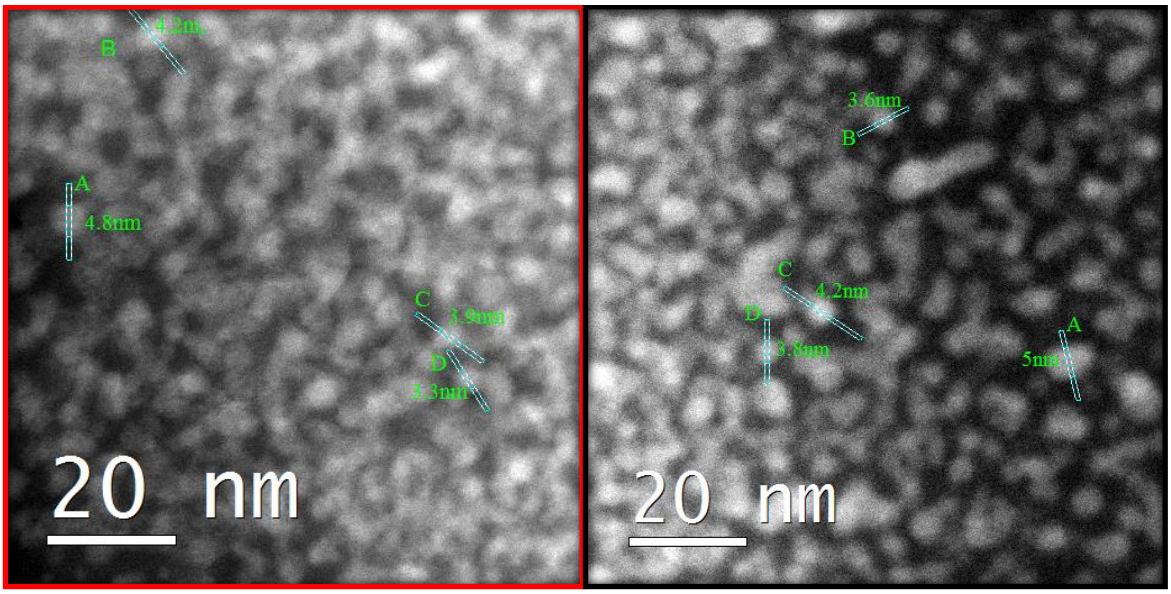

Figure 1S: HAADF-STEM images of the selected isolated QDs chosen for interface thickness estimation. Left image refers to sputter sample (1.25×10^{22} Ge/cm^3), right image corresponds to PECVD sample (1.3×10^{22} Ge/cm^3).

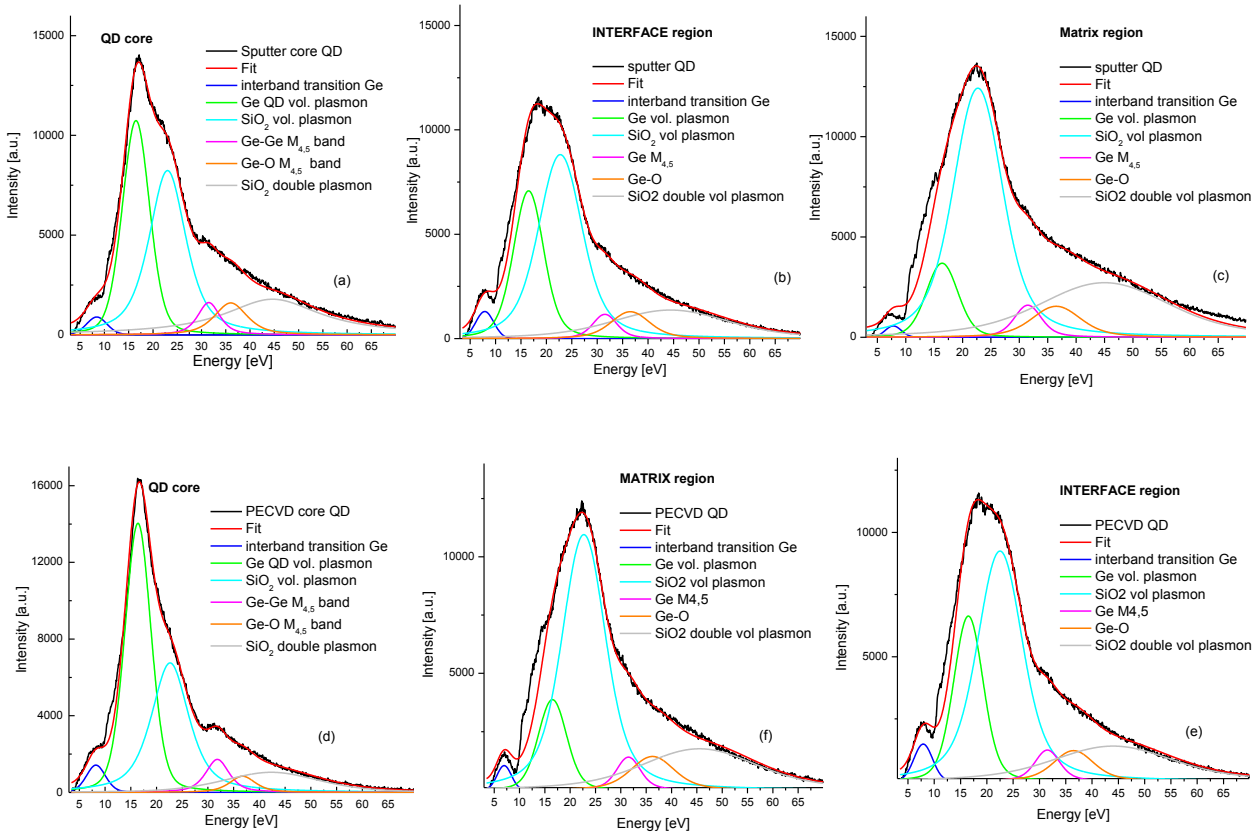

Figure 2S: EELS spectra and the corresponding fittings related to sputter QD at the core (a), interface (b) and matrix (c) regions. Figure 1s (d), (e) and (f) correspond to EELS spectra and relatives fittings at the core, interface and matrix regions of PECVD QD, respectively.

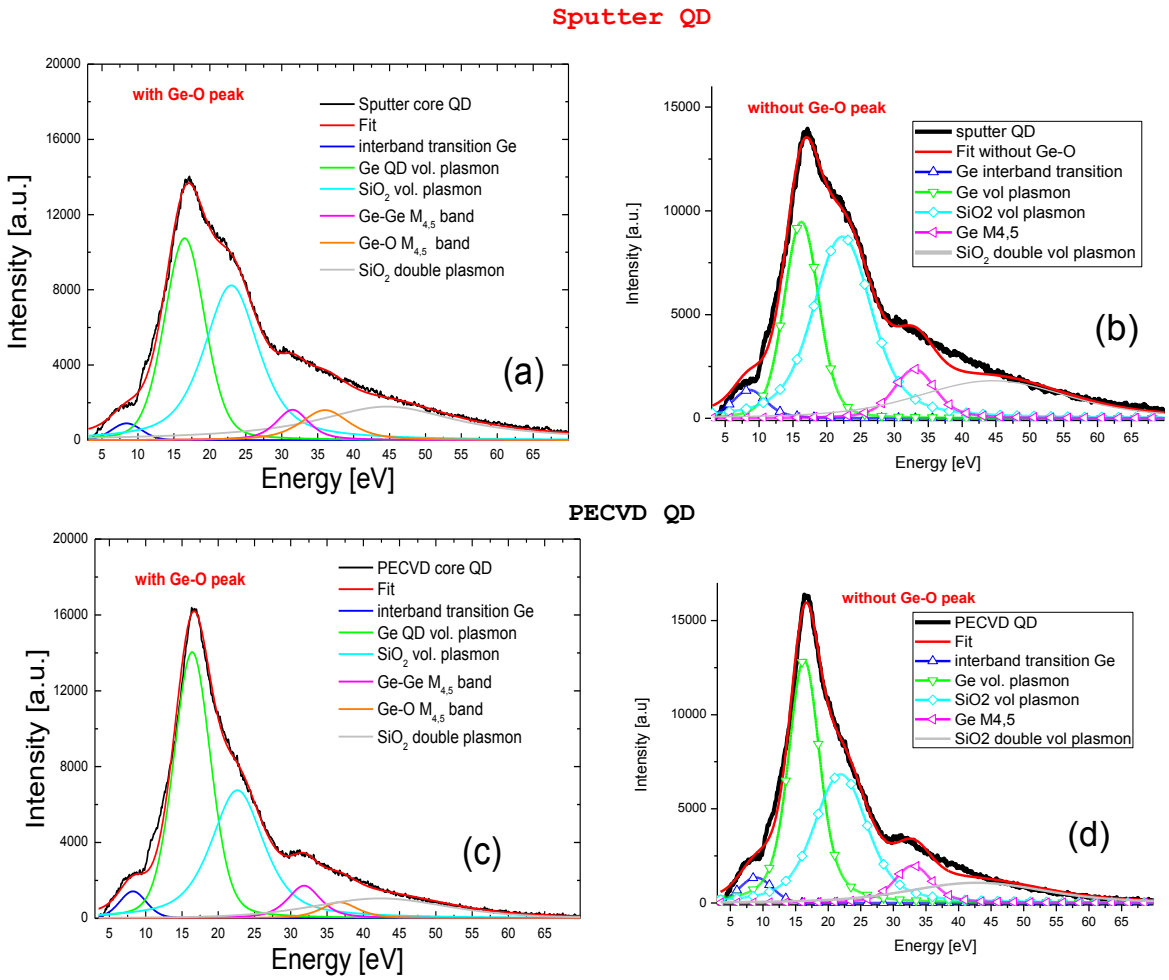

Figure 3S: Comparison of the EELS spectra of sputter and PECVD Ge QDs in SiO_2 and corresponding fittings with (a and c) or without (b and d) the contribution of Ge-O peak.

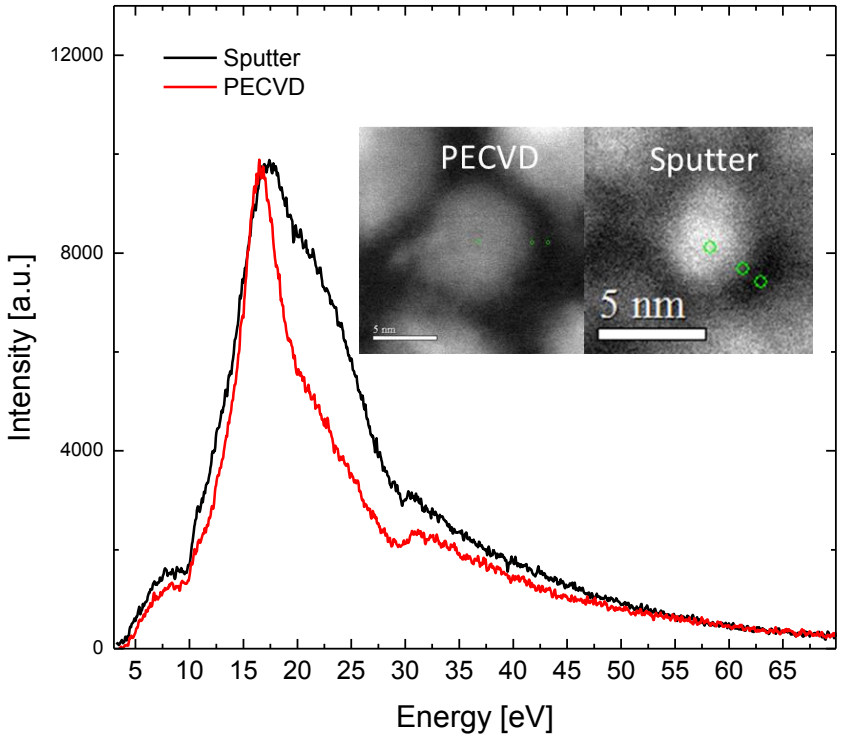

Figure 4S: Low-loss EELS spectra in the core of Ge QD in SiO_2 grown by sputtering (4 nm size) or PECVD (7 nm size). Insets show HAADF-STEM micrographs of the two selected QDs.

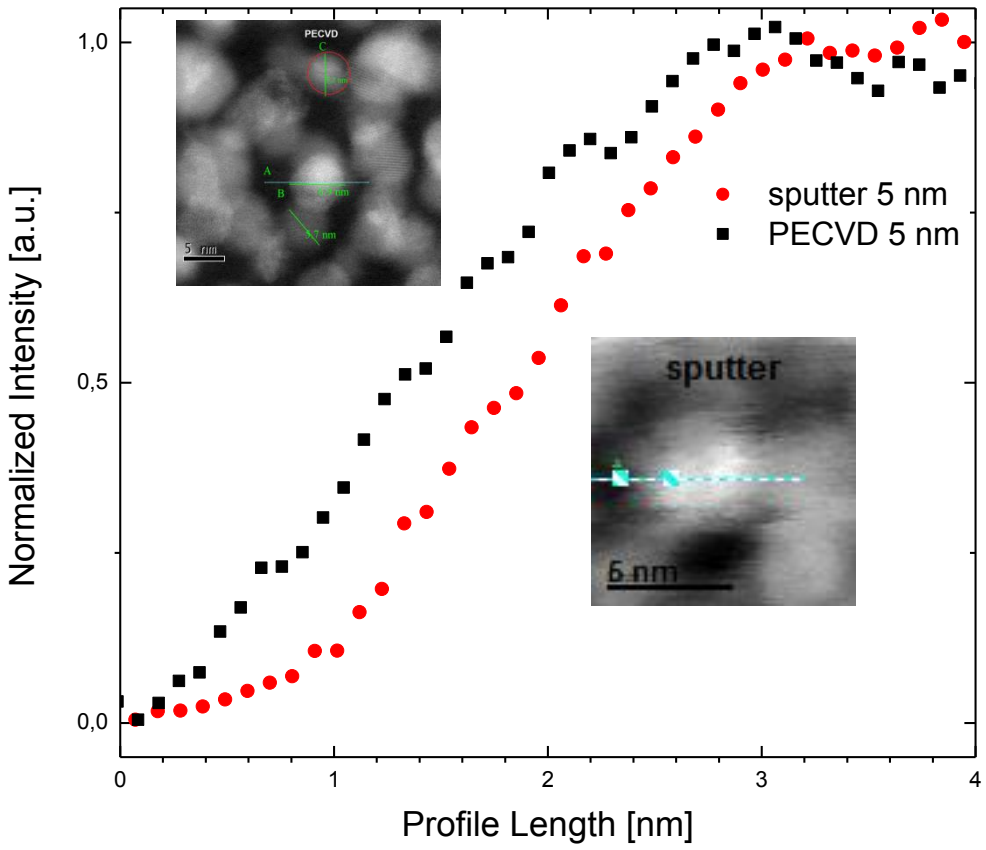

Figure 5S: Z-contrast line scan profile of HAADF-STEM image of 5 nm size QDs deposited by sputter and PECVD (QD marked with C letter in the inset). Insets show HAADF-STEM micrographs of the selected QDs.