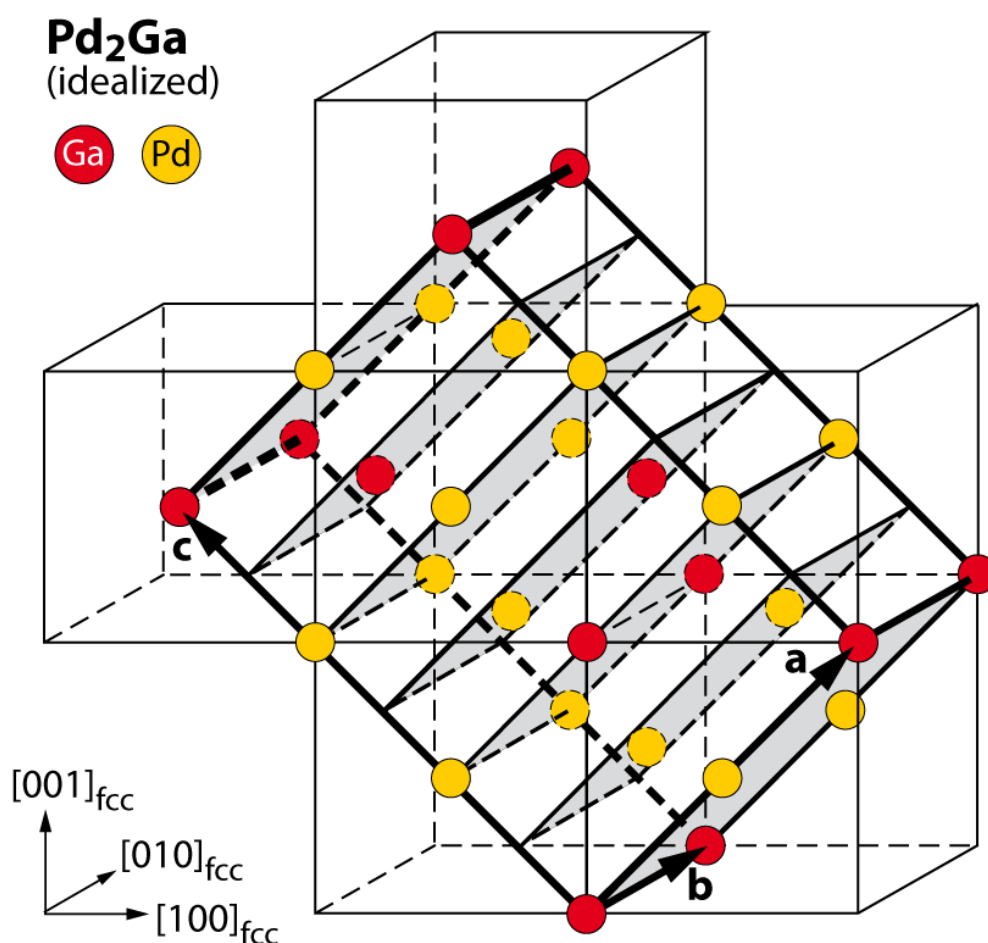


Supporting Information to

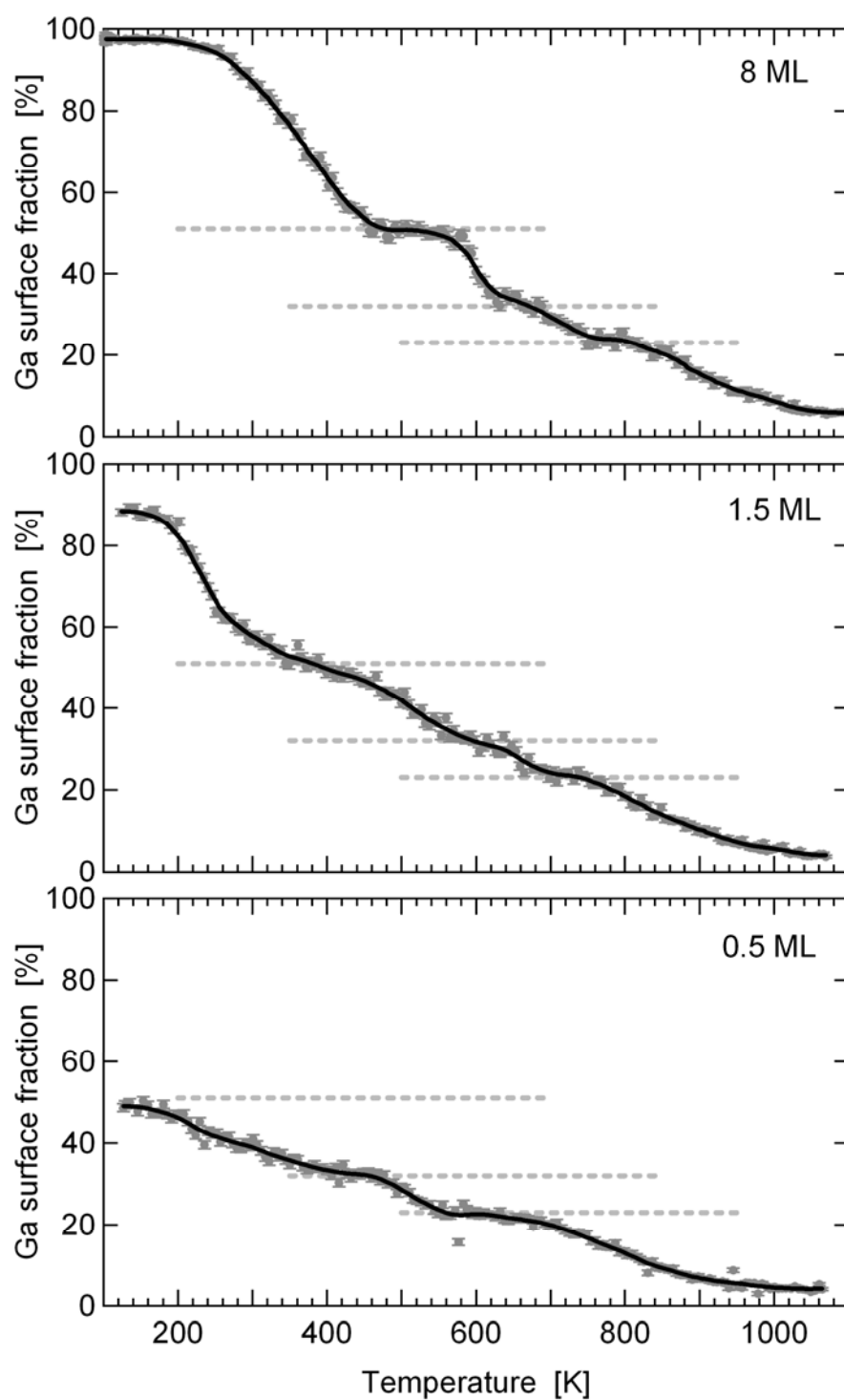
Alloying and Structure of Ultrathin Gallium Films on the (111) and (110) Surfaces of Palladium

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S1 Unit cell of idealized Pd₂Ga, where all atoms reside on the sites of an face-centered cubic (fcc) lattice. The planes shaded in grey exhibit a Pd₂Ga(001) orientation, equivalent to fcc(-1 0 1). In the real Pd₂Ga structure, atoms are distorted from these ideal fcc sites, leading to buckling of the atoms in the Pd₂Ga(001) planes. For a three-dimensional representation of the real structure see Ref. 26.

²⁶ Kovnir, K.; Schmidt, M.; Waurisch, CH.; Armbrüster, M.; Prots, Y.; Grin, Y. Refinement of the Crystal Structure of Dipalladium Gallium, Pd₂Ga. Z. Kristallogr. NCS **2008**, 223,7-8.



S2 Selection of raw and smoothed temperature-programmed LEIS data for Ga/Pd(111). All plateau-like features (at Ga fractions of $\approx 50\%$, $\approx 33\%$ and 25% as indicated by the horizontal grey dashed lines) are clearly visible in both the raw and the smoothed data.