

Supplementary Information

Article: „Investigation of Au droplet formation and growth of Si_xGe_{1-x} nanowires by molecular beam epitaxy”

Felix Lange ^{*a}, Owen C. Ernst ^a, Thomas Teubner ^a and Torsten Boeck ^a

Calculation of surface diffusion activation energy (E_d), parameter $\ln(A)$, effective energy (E_n) and parameter $\ln(B)$ from the Au droplet diameter distribution results:

Au droplet / Si NW diameter	Total number of Au droplets / Si NWs per area
$d^4 = \frac{A \cdot \exp\left(\frac{-E_d}{k_B \cdot T}\right)}{T}$	$N = B \cdot \exp\left(\frac{E_n}{k_B \cdot T}\right)$
$\ln(d^4 \cdot T) = \ln(A) - E_d \cdot \left(\frac{1}{k_B \cdot T}\right)$	$\ln(N) = \ln(B) + E_n \cdot \left(\frac{1}{k_B \cdot T}\right)$

