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Supplementary Materials

Tuning the Liquid–Vapour Interface of VLS Epitaxy for Creating Novel Semiconductor Nanostructures

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Geometric ratio α is defined as:

$$\alpha \equiv \frac{V}{H.L}, \quad \text{(S1)}$$

where V is the total volume of the alloy in the micro-crucible, H is the thickness of the alloy, and L is the length of the opening. With the known plan-view area of the alloy in the micro-crucible A_{cru}, the geometric ratio α can be estimated assuming that the thickness H is uniform across the micro-crucible:

$$\alpha \equiv \frac{A_{cru}.H}{H.L} = \frac{A_{cru}}{L}. \quad \text{(S2)}$$

Hence, by measuring the length of the opening L and the plan-view area of the alloy A_{cru}, we can estimate the values of the geometric ratio. Tables S1 and S2 show the measurements of the geometric ratios of micro-crucibles with small and large openings, respectively.

Table S1. Measurements of geometric ratios for micro-crucibles with small openings.

No	L (μm)	A_{cru} (μm²)	α (μm)
1	11.79	187.25	15.89
2	11.68	177.91	15.23
3	11.85	166.76	14.07
4	11.65	156.11	13.40
5	11.65	145.15	12.46
6	11.77	132.76	11.28
7	11.46	243.03	21.21
8	11.65	227.30	19.51
9	11.72	217.28	18.54
10	11.79	210.60	17.87
		Mean α	15.95

Table S2. Measurements of geometrics ratio for micro-crucibles with large openings.

No	L (μm)	A_{cru} (μm²)	α (μm)
1	38.86	481.22	12.38
2	45.32	458.78	10.12
3	37.51	583.23	15.55
4	47.21	576.10	12.20
5	39.66	486.86	12.27
6	45.52	461.33	10.13
7	37.44	579.98	15.49
8	47.34	578.01	12.21
		Mean α	12.55