

Supporting information

Title: Synthesis of hetero-site nucleation twisted bilayer MoS₂ by local airflow perturbations and interlayer angle characterization

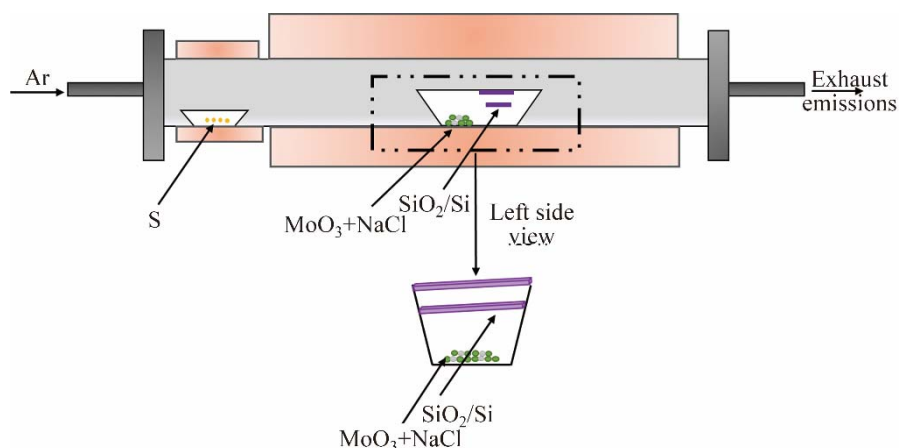


Figure S1 Schematic diagram of the experimental setup for CVD growth of MoS₂

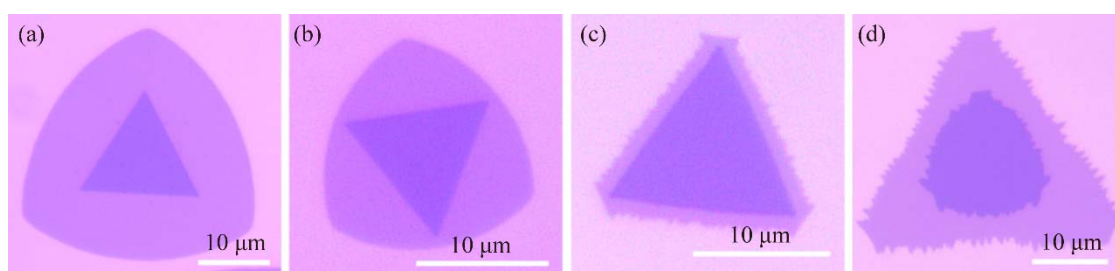


Figure S2 Optical images of homo-site nucleation of tBMoS₂ (Scale bar: 10 μm)

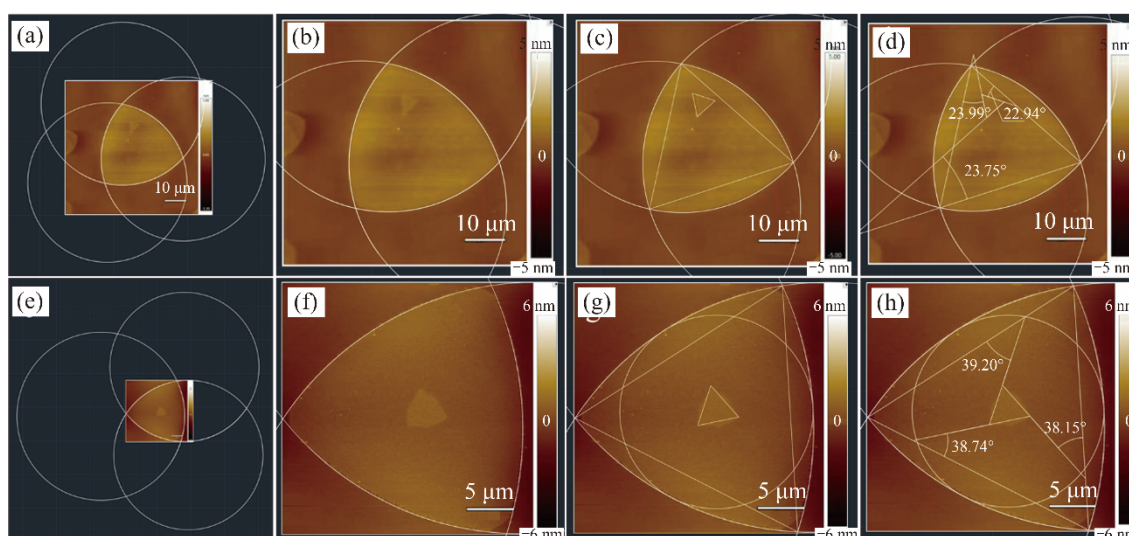


Figure S3 (a–d) Steps for the geometric measurement of tBMoS₂ in hetero-site growth; (e–h) Steps for the geometric measurement of tBMoS₂ in homo-nucleation growth

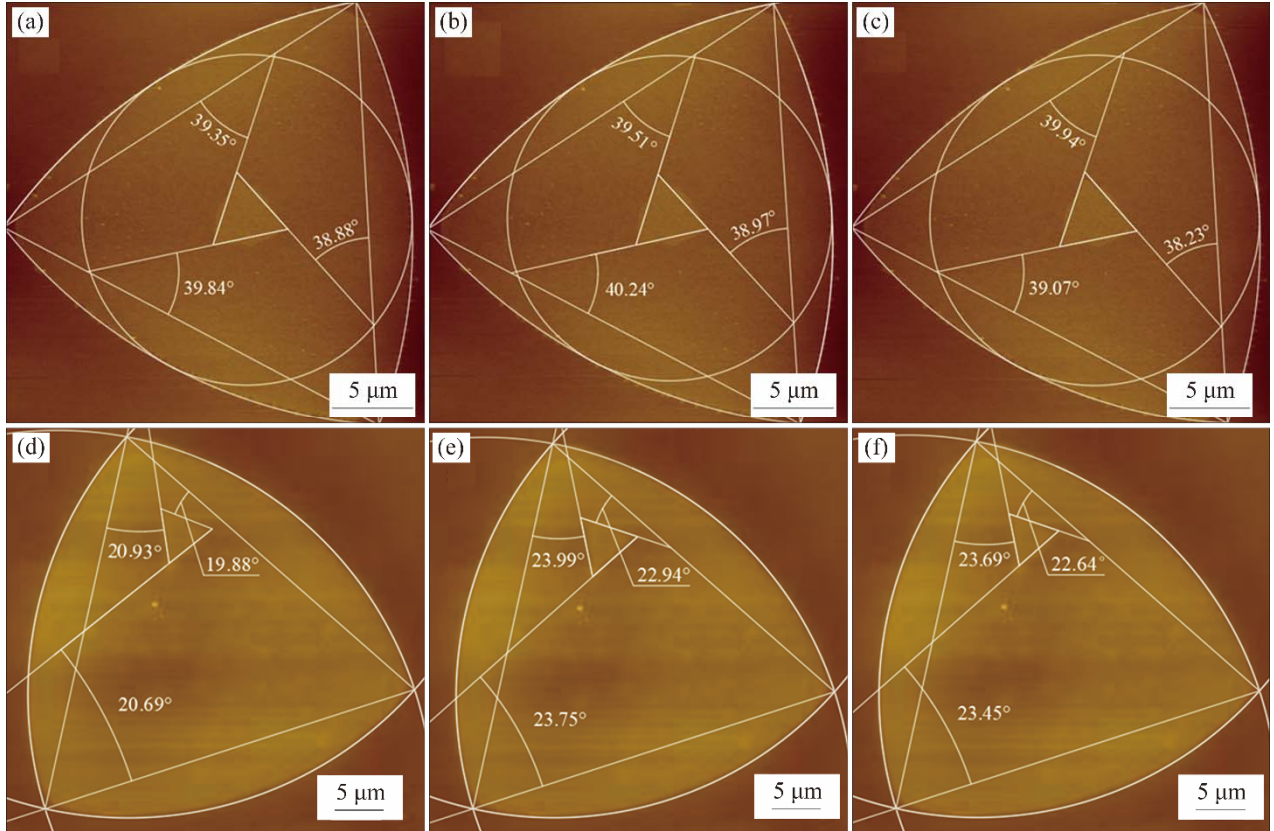


Figure S4 (a–c) Three results of geometric measurement of tBMoS₂ in hetero-site growth; (d–f) Three results of geometric measurement of tBMoS₂ in homo-nucleation growth

S1 Variance calculation formula

Variance is a measure of the degree of dispersion of a random variable or a set of data. For a group of random variables or statistical data, the expected value (average) is expressed by $E(x)$, then the square sum of the difference between each data and the mean value, and finally the variance formula is obtained by calculating the expectation of the square sum. The variance formula is as follows:

$$D(x) = E\left\{\sum [x - E(x)]^2\right\}$$

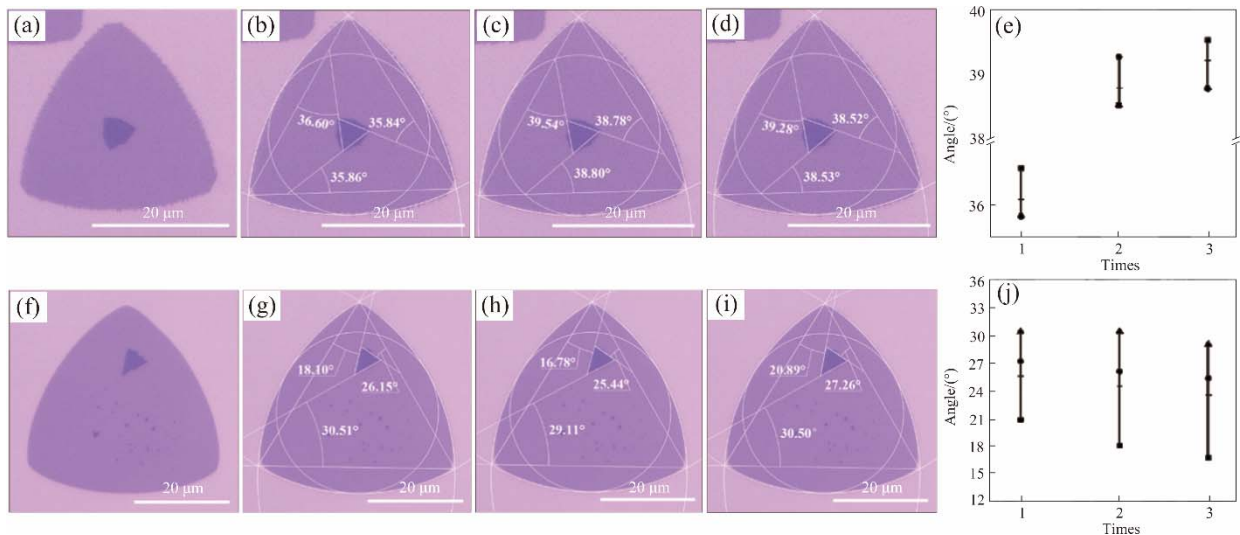


Figure S5 (a) OM images of Figure 2(b); (b–e) Three results of geometric measurement of Figure S8(a); (f) OM images of Figure 2(f); (g–j) Three results of geometric measurement of Figure S8(f)

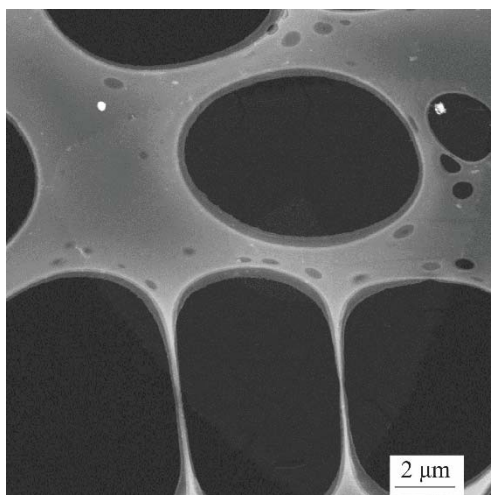


Figure S6 Dark field image in TEM of original data in Figure 3(a)

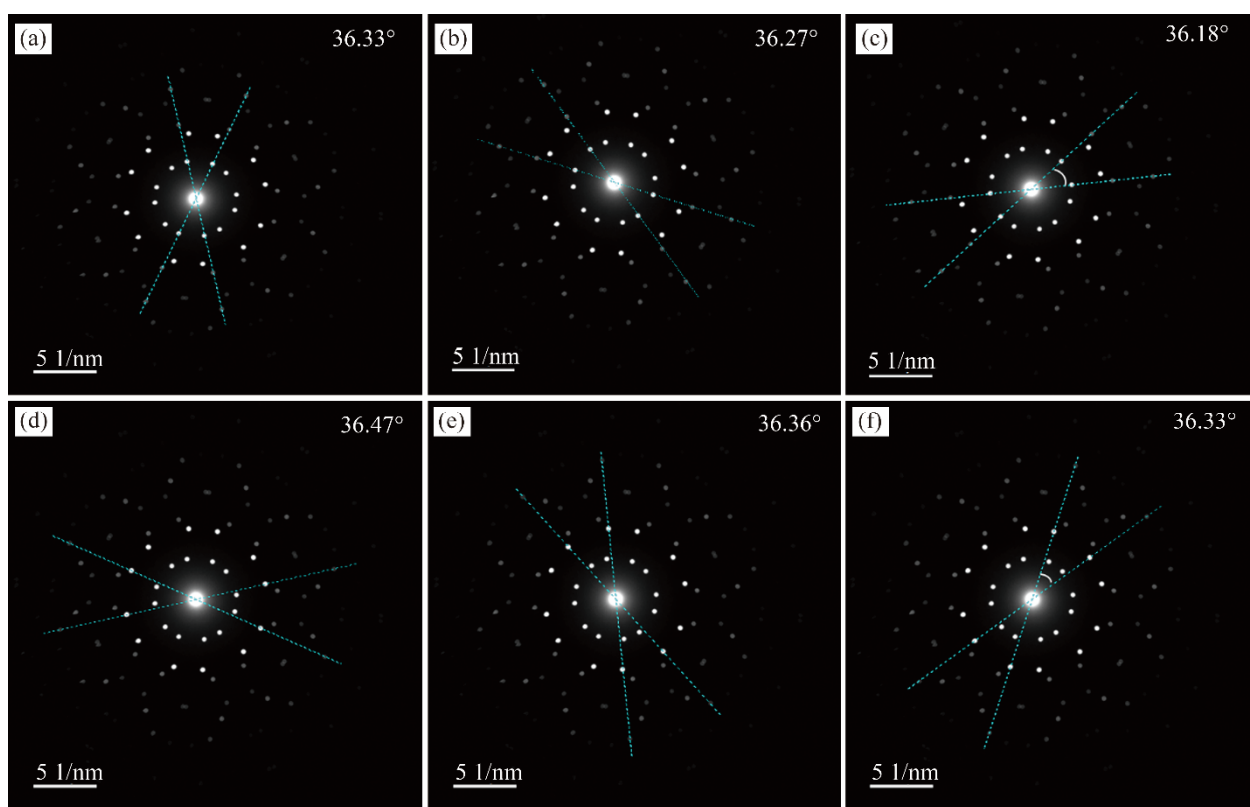


Figure S7 (a–c) Three results of the primary diffraction class of TEM-SAED for the measurement of tBMoS₂; (d–f) Three results of the secondary diffraction class of TEM-SAED for the measurement of tBMoS₂