

Supporting Information

Conformational Transitions of Phase-Separated Binary Molecules Assisted by Surface Dehalogenation

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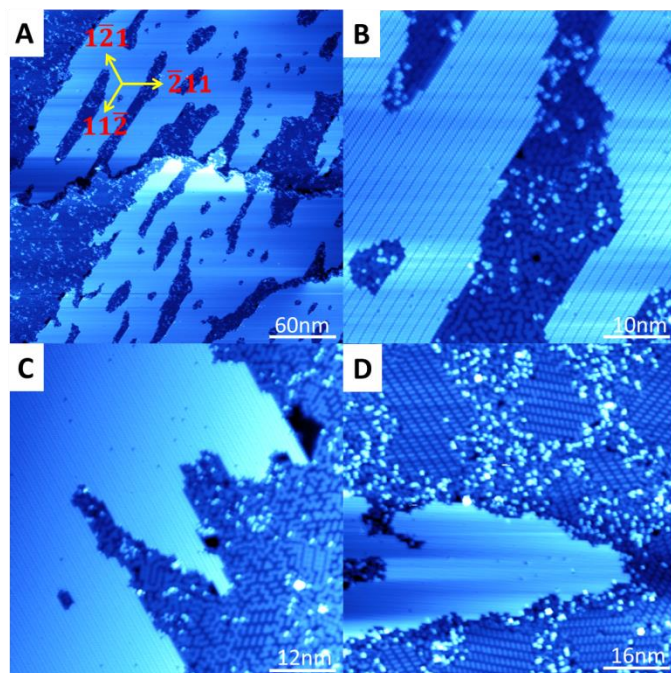


Figure S1. (A) Large-scale standing-up phase (phase IV) of melamine after annealing at 363 K. (B), (C) and (D) The standing-up phase aligned along $[11\bar{2}]$, $[\bar{1}21]$ and $[\bar{2}11]$ crystallographic directions, respectively. Scanning parameters: (A) -1.5 V, 100 pA; (B) -1.5 V, 200 pA; (C) 1 V, 150 pA; (D) 1 V, 100 pA.

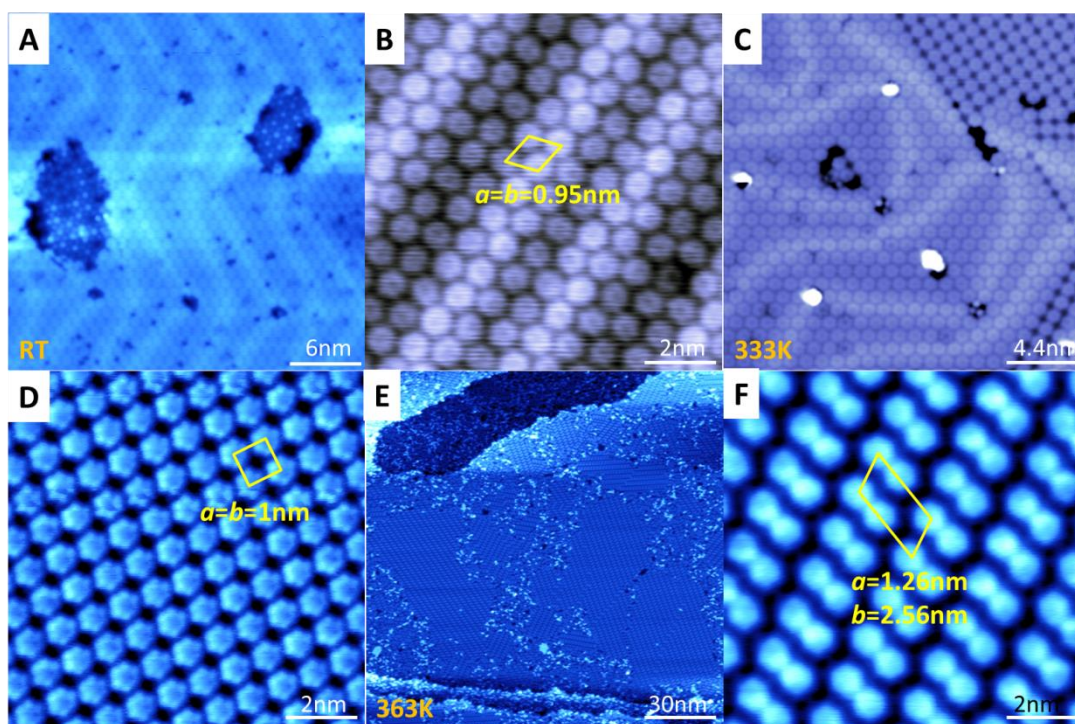


Figure S2. The successive phases of HBB molecules from hexagonal, tetragonal to dimer structure with the increase of annealing temperature. (A) and (B) Densely packed hexagonal structure as deposited. (C) and (D) Tetragonal structure after annealing at 333 K. (E) and (F) Dimer structure annealed at 363 K. Scanning parameters: (A) 1.5 V, 500 pA; (B) 2 V, 100 pA; (C) 1 V, 500 pA; (D) -0.5 V, 1 nA; (E) 2 V, 100 pA; (F) 1 V, 300 pA.

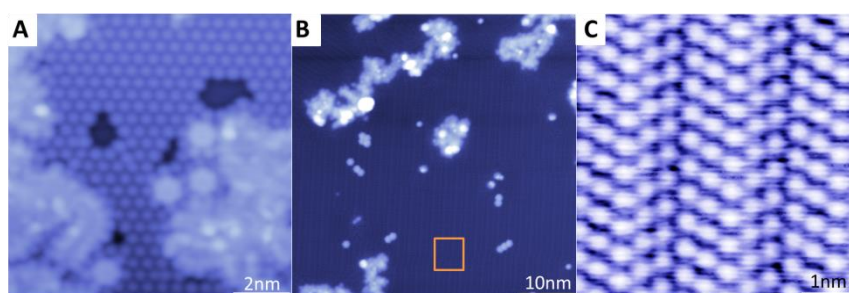


Figure S3. Different arrangement of Br atoms on (A) Au(111) and (B) Ag(111) after annealing at 680 K. (C) Zoom-in image of square area in B. Scanning parameters: (A) -300 mV, 100 pA; (B) 2 V, 80 pA; (C) 2 V, 80 pA.