## **Description of Additional Supplementary Files**

Title: Supplementary Movie 1.

Description: Translation and rotation of quasi-van der Waals bonded Au islands on MoS2. Au nanoislands on MoS2 recorded in STEM ADF conditions at room temperature. Small translations and rotations of the islands show the weakness of the bond between Au and MoS2. The beam current was 9.44 pA and the scan area was 115 nm x 115 nm. 1k x 1k images were recorded at 6.31 seconds/frame, 32.5 mrad convergence angle, and 1.125 Å pixel spacing.