

Supporting Information

Template Growth of Au, Ni and Ni–Au Nanoclusters on Hexagon Boron Nitride/Rh(111): A Combined STM, TPD and AES Study

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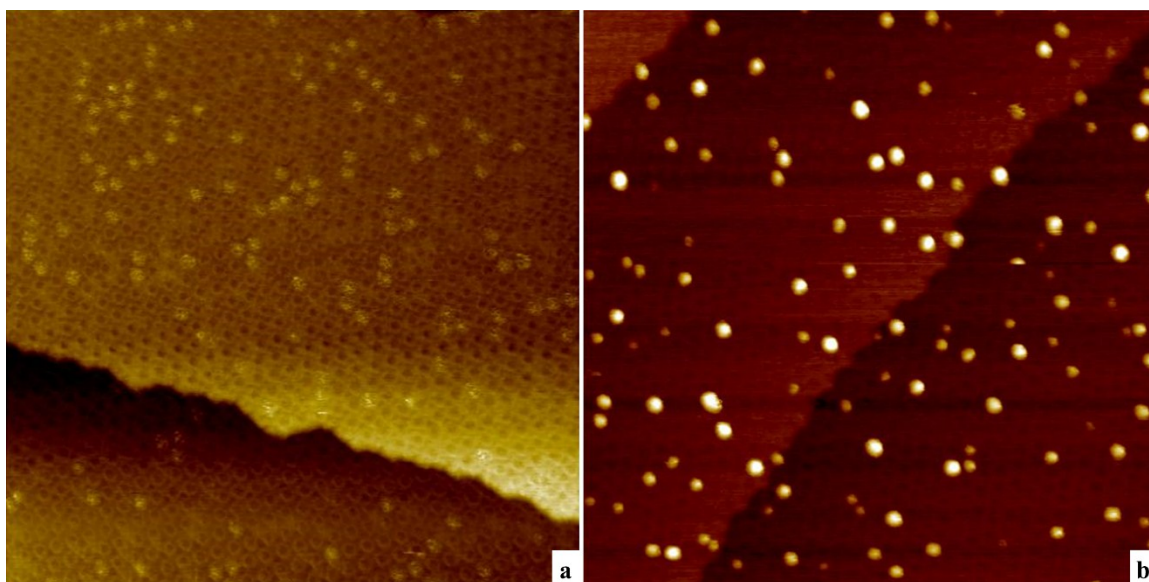


Figure S1: Scanning tunneling microscopy analysis of Au and Ni-Au clusters deposited and imaged at room temperature on h-BN/Rh(111). Tunneling parameters: $V_{\text{sample}}=1.0$ V, $I_{\text{tunneling}}=100$ pA. (a) 0.05ML Au/h-BN/Rh(111), 100 nm×100 nm; (b) 0.05ML Ni/0.05 ML Au/h-BN/Rh(111), (Au deposited first), 100 nm×100 nm.

For low surface coverage 0.05ML Au/h-BN/Rh(111), all clusters are single layers (1.5 ± 0.1 Å

in height) with template confinement into the nanomesh pores (diameters of the Au clusters 1.75 ± 0.25 nm). After depositing Ni (0.05 ML) on 0.05 ML Au/h-BN/Rh(111), Ni-Au bimetallic clusters are formed (Figure S1b).