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## Ag(110) 기판 위에 증착된 Nb Cluster에 관한 STM연구

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The initial growth mode of Nb on Ag(110) in sub-monolayer regime and the influence of subsequent 520K annealing are studied using UHV Scanning Tunneling Microscopy. E-beam evaporated Nb is deposited onto the substrate at RT, and STM measurements are carried out at RT and 78 K. With Nb being immiscible in bulk Ag, 3D islands formation begins at early stage and no particular ordered structure is found. After annealing to 520K, most of islands are disappeared from terrace. There exist 2 possibilities. : (1)Diffusion of Nb into the 2nd or 3rd layer of Ag substrate or (2)agglomeration of Nb on Ag at higher temperature. A model will be given to explain the evidence.

In addition, we investigated the change of STM image according to bias voltage depending on island size. Possible physical mechanism responsible for such behavior together with interaction between Nb islands and reactive gases will be also discussed.