

We deposited several submonolayer films of rhodium and vanadium onto polycrystalline γ -Al₂O₃ substrate. Prepared samples were different in ratio of deposited amount of rhodium and vanadium. XPS spectra of surface were measured after every particular step of metal deposition, sample annealing and CO, oxygen adsorption. Adsorption and temperature stimulated desorption of gas molecules were performed using Molecular Beam and Thermo Programmed Desorption methods. Furthermore, we studied a bimetallic system prepared by deposition of vanadium onto polycrystalline Rh foil and growth of vanadium on γ -Al₂O₃.