Investigation of adsorption structure for methionine on Ge(100)

양세나, 윤영상, 박선민, 황한나, 황찬국, 김세훈, 이한길

숙명여자대학교 화학과, 한국과학기술원 화학과, 포항가속기연구소 빔라인부

Adsorption and ordering of methionine molecules on Ge(100) surface have been studied using high resolution photoemission spectroscopy and low-energy electron diffraction (LEED) to investigate the adsorption structure as a function of coverage. Analysis of C 1s, S 2p, N 1s, and O 1s core levels reveals quite different according to methionine coverage. We found that the relative population of the two types of thiolates induces a structural change in the ordering from 2 × 1 to 1 × 1. Such an unusual evolution of the methionine adsorption on the Ge(100) surface is discussed in relation to chemical reactions and possible molecular rearrangement on the surface.