

Au nano array formed on patterned Al₂O₃(0006)

황재성¹, 강현철², 서옥균¹, 오필건¹, 이성표¹, 이수용¹, 김수남¹, 김재명¹, 조인화¹, 노도영¹

¹Department of Materials Science and Engineering, Gwangju Institute of Science and Technology,
Gwangju, Korea

²Chosun university ,Gwangju, Korea

The formation of Au nano particles from thin films on patterned substrates depends sensitively on film thickness and time. The nano Au line and shape formed by annealing Au films on patterned oxide substrates are different from those formed on semiconductor. In this experiment, we deposited thin Au films on patterned Al₂O₃(0006) using E-beam evaporator, and annealed them at various temperatures and thickness under various conditions by RTA. We measured behavior of the Au during annealing Au structure and shape are changed when Au film becomes thicker. The shape of the resultant Au nano particles and their coarsening process are investigated using SEM and XRD..