

Supplemental data: Sacrificial copper nitride layer for PEALD of copper

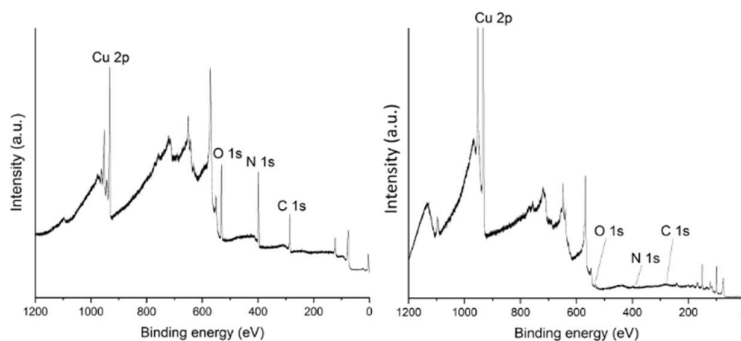


Fig. 1. XPS of as-deposited 60 nm Cu_3N film (left) and XPS graph of Cu film by depositing Cu/Cu₃N/Si film (right, sputtered 60 min to exclude surface contamination)

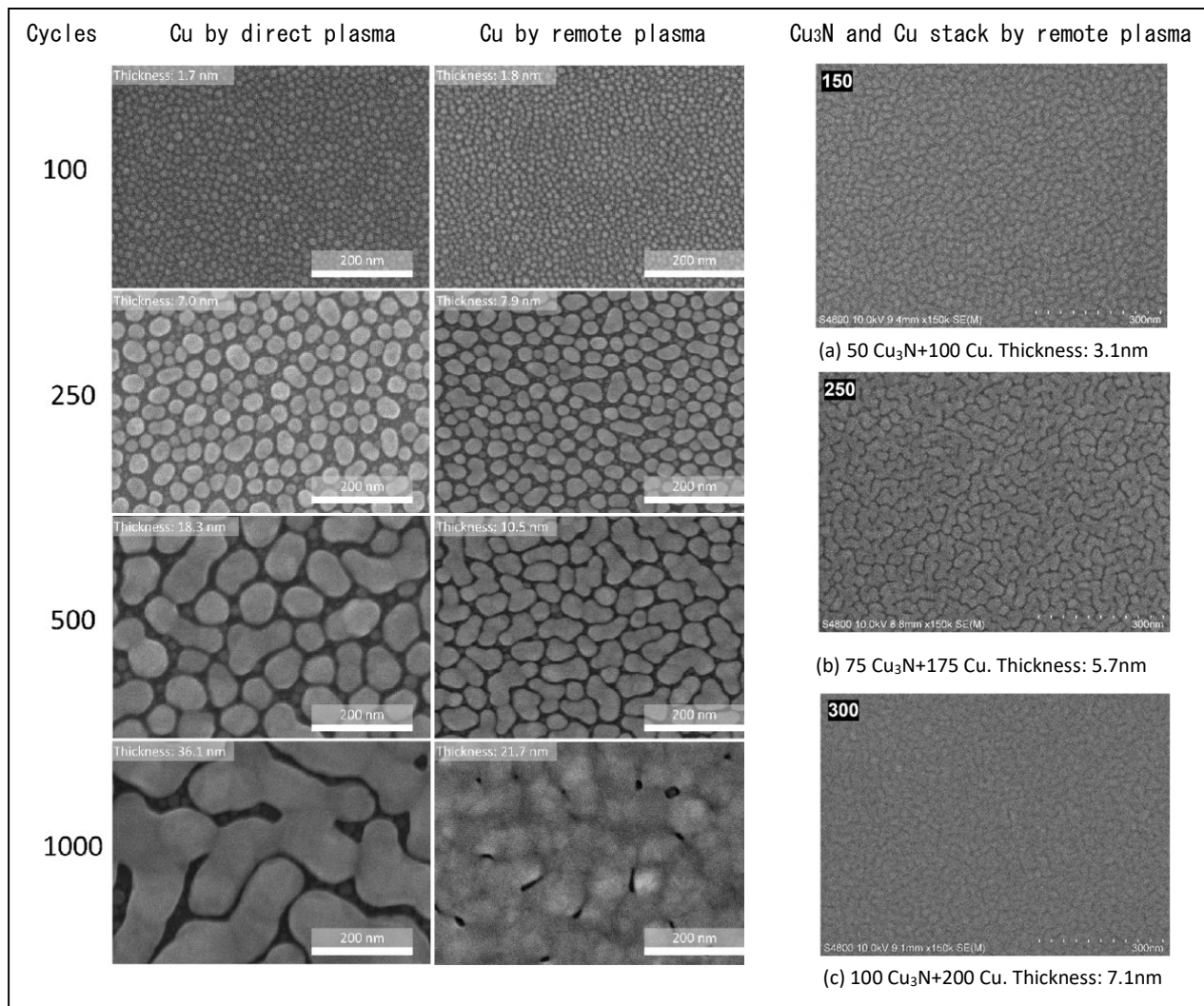


Fig. 2. Cu film morphology as a function of PEALD process and number of deposition cycles