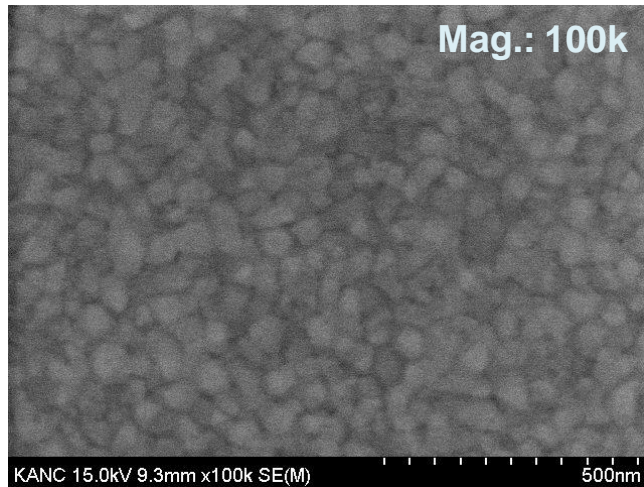


Characterization of Cu/Ti and Cu/Ta films deposited by DC sputtering

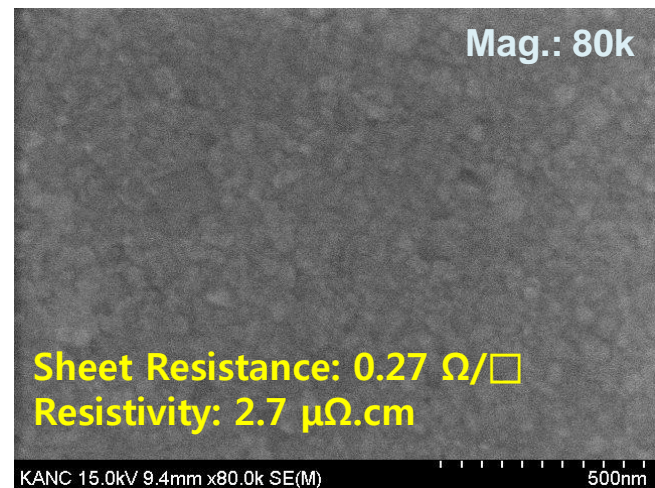
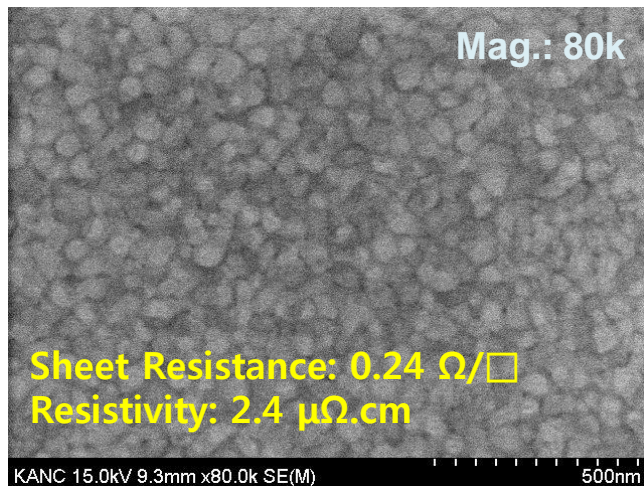
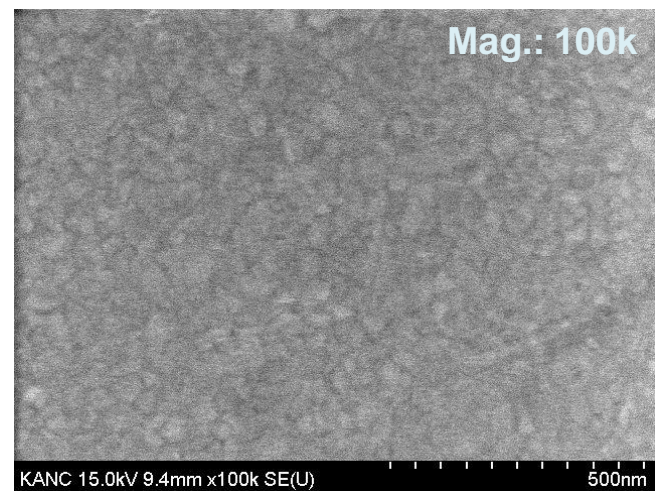


[1] SEM Micrographs of Cu/Ti and Cu/Ta Films

Cu/Ti (100 nm/20 nm)

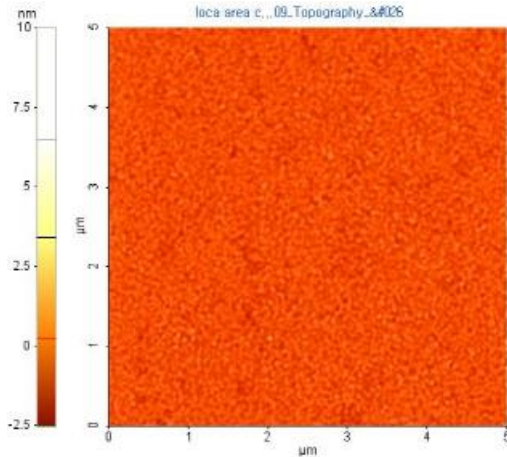


Cu/Ta (100 nm/20 nm)

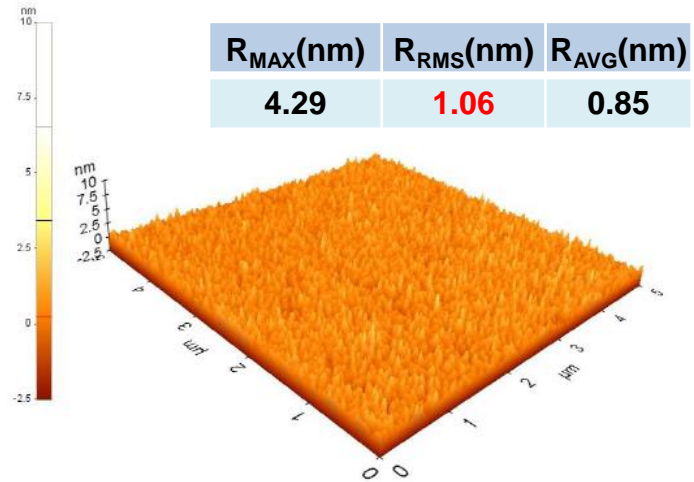
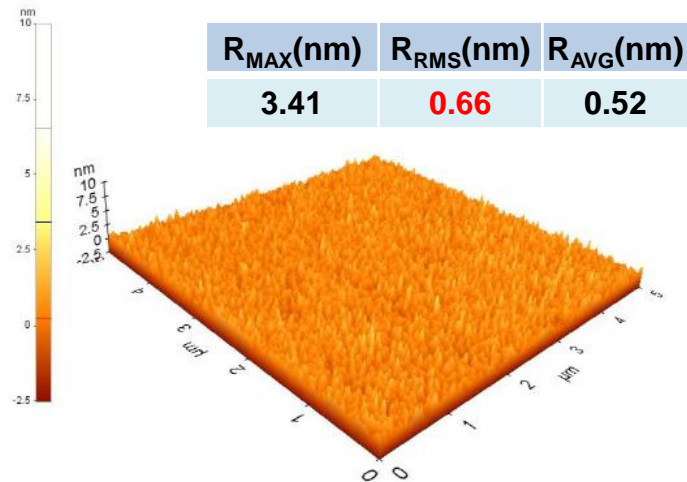
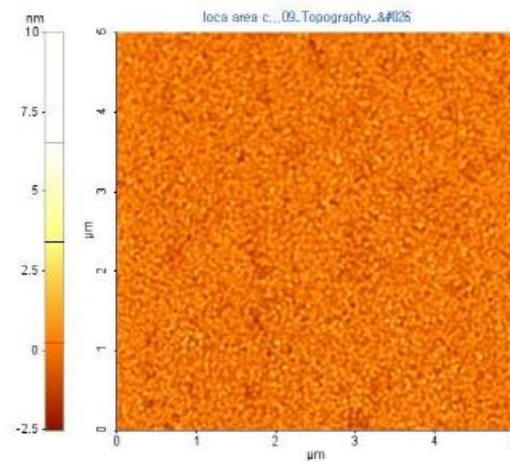


[2] Surface Roughness of Cu Films (AFM)

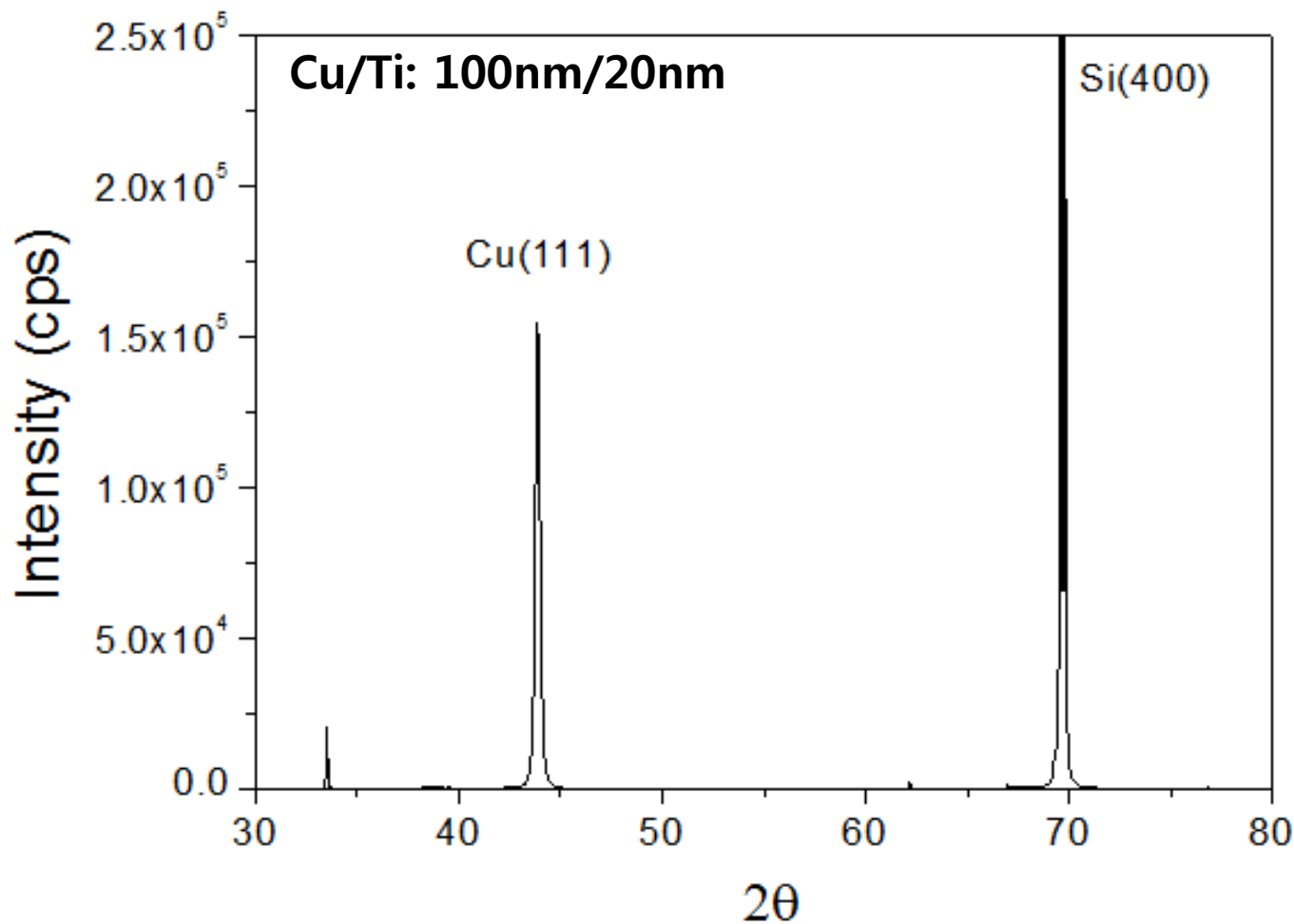
Cu/Ti (100 nm/20 nm)



Cu/Ta (100 nm/20 nm)

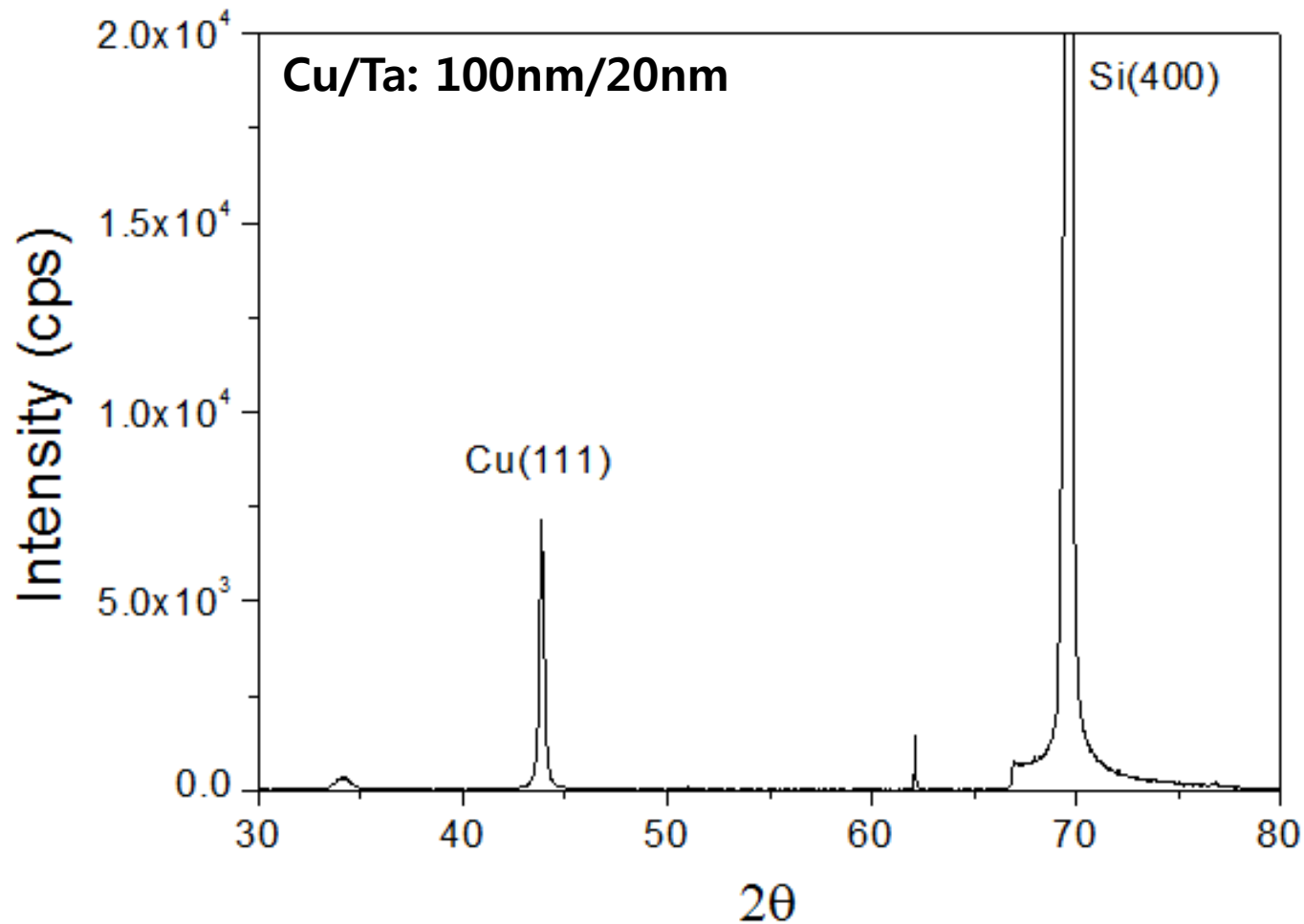


[3-1] Crystallinity of Cu/Ti Film (XRD)



Cu(111) peak intensity: ~124k cps

[3-2] Crystallinity of Cu/Ta Film (XRD)



Cu(111) peak intensity: ~5.5k cps