

Fig. 1: Transition of etching depth of Cu (3 cycles of ALE) with O_2 -GCIB in acetic acid vapor. (O_2 -GCIB, $V_a = 3, 5$ and 20 kV, GCIB irradi. Time: 60 sec., Duration time of acetic acid supply: 2 sec., Evacuation time: 30 sec., Partial pressure of acetic acid: 2.6×10^{-3} Pa)

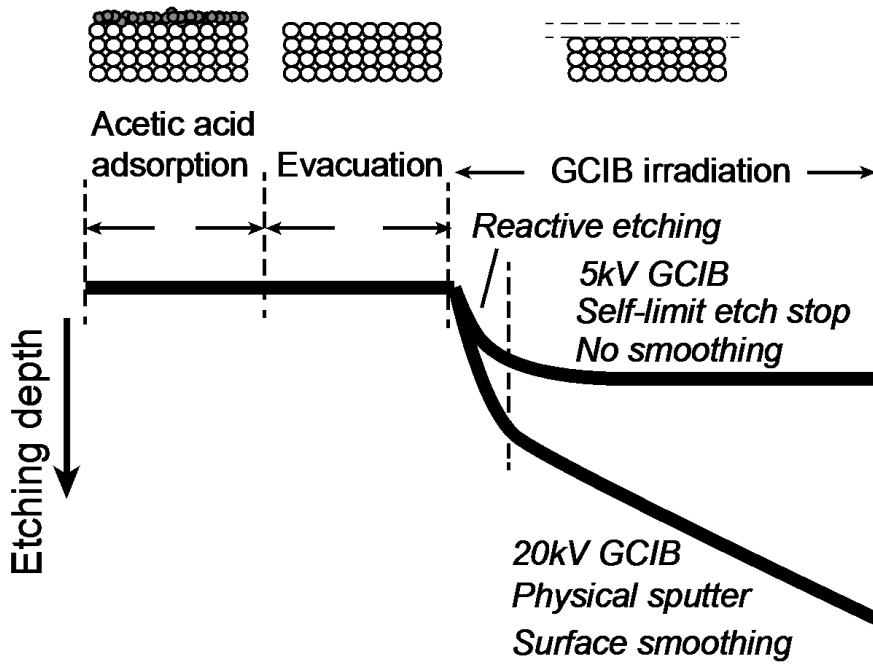


Fig.2: Model of one cycle of ALE of Cu with O_2 -GCIB in acetic acid vapor.