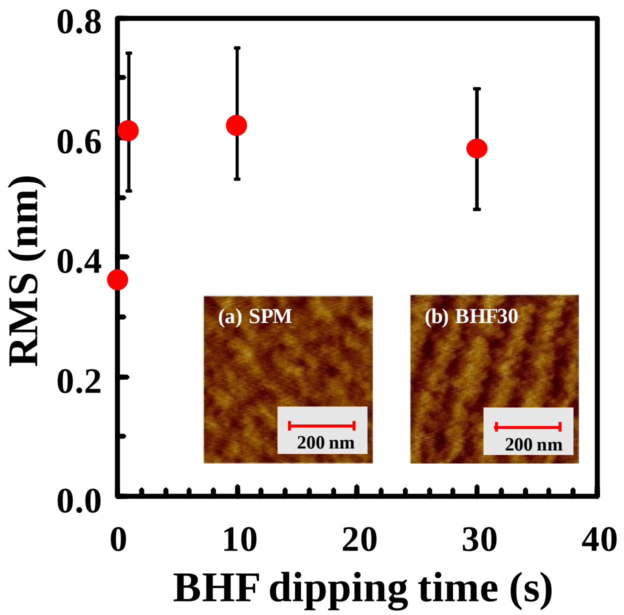

Fig. 1 The surface roughness of β-Ga_2O_3 substrates as a function of the time of BHF treatments. Insets show AFM images of β-Ga_2O_3 substrates cleaned by (a) SPM 5min and (b) BHF 30 min. The RMS increased rapidly by BHF treatment from 0.35 to 0.6 nm. The RMS values showed a same values (~0.6 nm) regardless of time of BHF treatment.

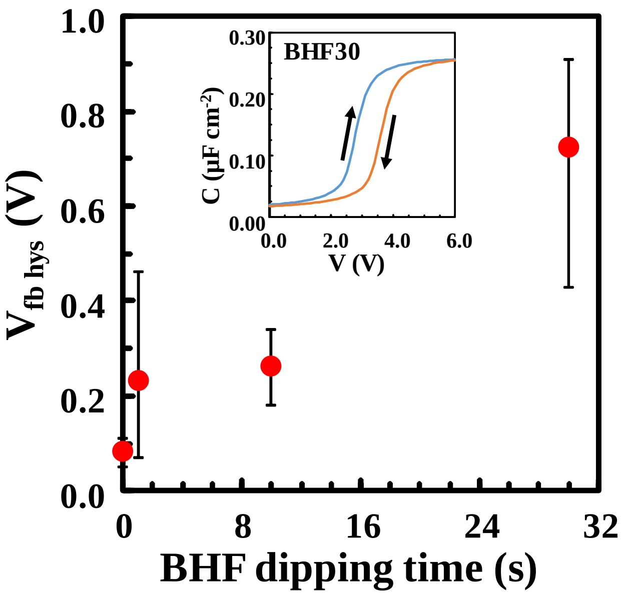

Fig. 2 $V_{fb\ hys}$ as a function of the time of BHF treatments. An inset showed C-V curves of BHF30 MOS capacitor. The $V_{fb\ hys}$ values increased as the BHF treatment time increases. This suggests that the number of traped / detraped electrons at Al_2O_3/β-Ga_2O_3 interface was increased.