## Correlation between ZnO nanowire growth and the surface of AlN substrate

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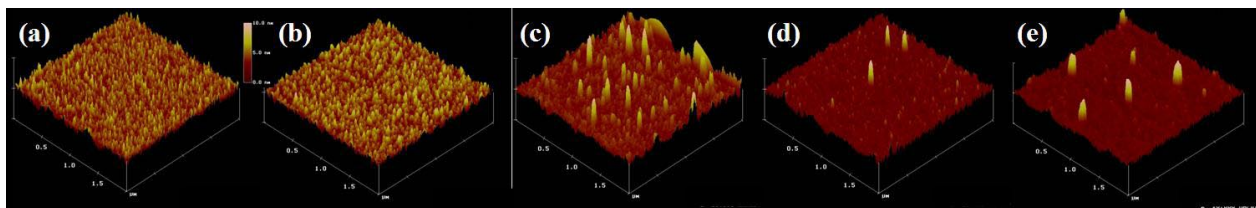e-mail : shlee@cir.tohoku.ac.jp



**Fig. S1** Surface roughness evolution, measured by AFM, of AlN layers with the HF treatment time.   (a-e) samples are a) As-grown, b) 1 min, c) 2 min, d) 3 min, and e) 4 min etched AlN epilayer and average roughness (RMS) were 0.846, 0.747, 1.155, 0.782, and 0.892 nm, respectively.