Supplementary Materials

The Mechanisms of AlGaN Template Growth and Crystalline Quality Improvement: Restrain of Gallium Residues, Mismatch Stress Relief and Control of Aluminum Atom Mobility

Baibin Wang[1,2], Jing Yang[1,*], Degang Zhao[1,3,*], Yuheng Zhang[1,2], Zhenzhuo Zhang[1,2], Feng Liang[1], Ping Chen[1] and Zongshun Liu[1]

[1] State Key Laboratory of Integrated Optoelectronics, Institute of Semiconductors, Chinese Academy of Sciences, Beijing 100083, China; bbwang@semi.ac.cn (B.W.); zyheng@semi.ac.cn (Y.Z.); zzzhang@semi.ac.cn (Z.Z.); liangfeng13@semi.ac.cn (F.L.); pchen@semi.ac.cn (P.C.); zsliu@semi.ac.cn (Z.L.)
[2] College of Materials Science and Opto-Electronic Technology, University of Chinese Academy of Science, Beijing 100049, China
[3] Center of Materials Science and Optoelectronics Engineering, University of Chinese Academy of Sciences, Beijing 100049, China
* Correspondence: yangjing333@semi.ac.cn (J.Y.); dgzhao@red.semi.ac.cn (D.Z.)

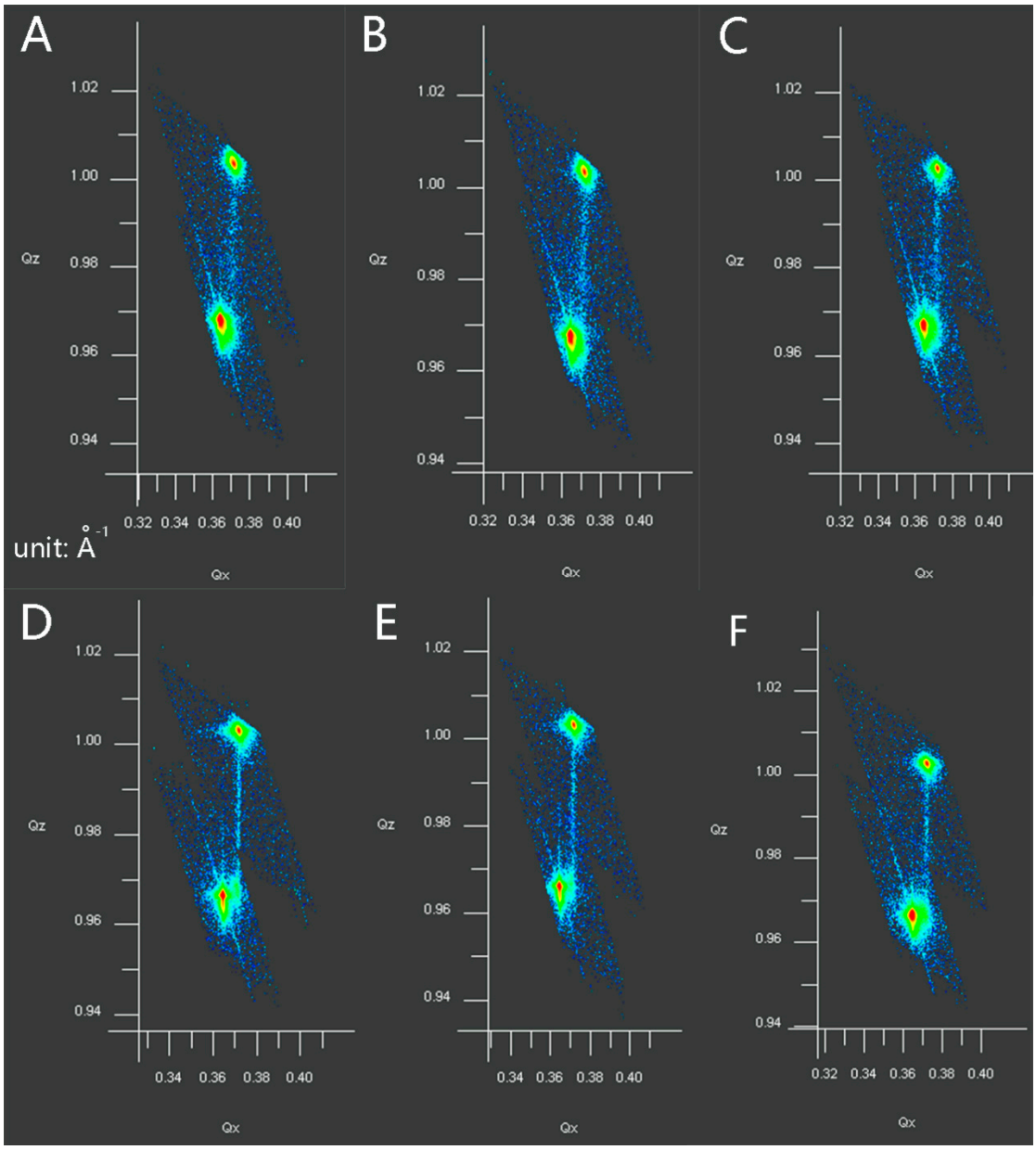


Figure S1. The (105) RSM of samples A, B, C, D, E and F

Table S1. The reciprocal space coordinates of AlGaN (105) RSM and the Al composition for the six samples

Sample	A	B	C	D	E	F
q_x (Å^{-1})	0.363903	0.364160	0.364169	0.364270	0.364357	0.364295
q_z (Å^{-1})	0.968055	0.967812	0.967149	0.966452	0.966052	0.966516
Al Concentration	18.2%	19.0%	17.6%	16.5%	16.1%	16.8%