

# Role of Si and C Impurities in Yellow and Blue Luminescence of Unintentionally and Si-Doped GaN

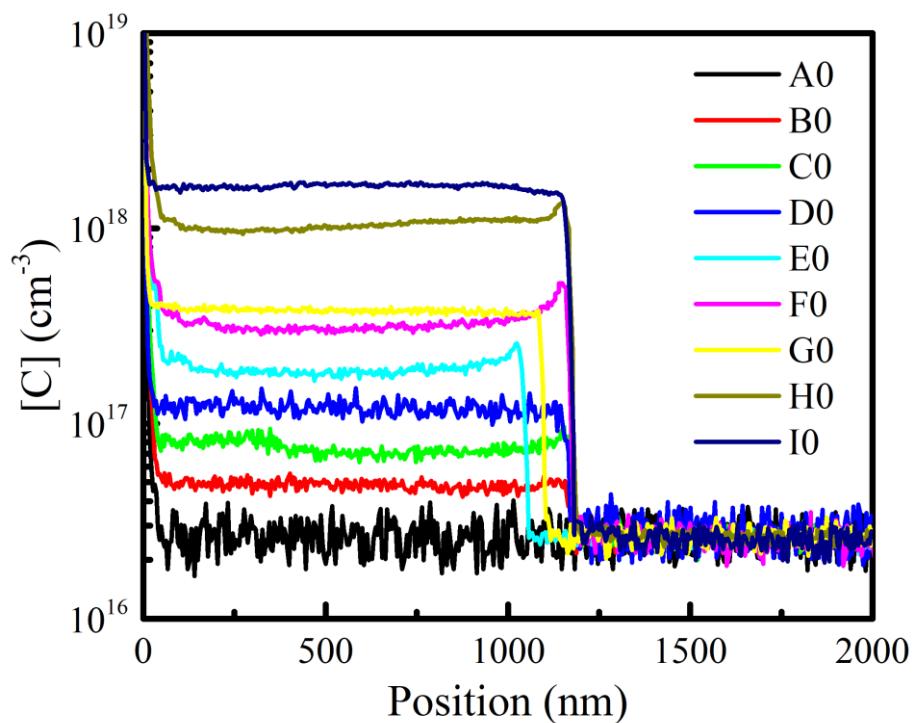
Feng Liang <sup>1</sup>, Degang Zhao <sup>1,2,\*</sup>, Desheng Jiang <sup>1</sup>, Zongshun Liu <sup>1,2</sup>, Jianjun Zhu <sup>1</sup>, Ping Chen <sup>1</sup>, Jing Yang <sup>1</sup>, Shuangtao Liu <sup>1</sup>, Yao Xing <sup>1</sup> and Liqun Zhang <sup>3</sup>

<sup>1</sup> State Key Laboratory of Integrated Optoelectronics, Institute of Semiconductors, Chinese Academy of Sciences, Beijing 100083, China; liangfeng13@semi.ac.cn (F.L.); dsjiang@semi.ac.cn (D.J.); zsliu@semi.ac.cn (Z.L.); jjzhu@semi.ac.cn (J.Z.); pchen@semi.ac.cn (P.C.); yangjing333@semi.ac.cn (J.Y.); lst7713@semi.ac.cn (S.L.); xingyao@semi.ac.cn (Y.X.)

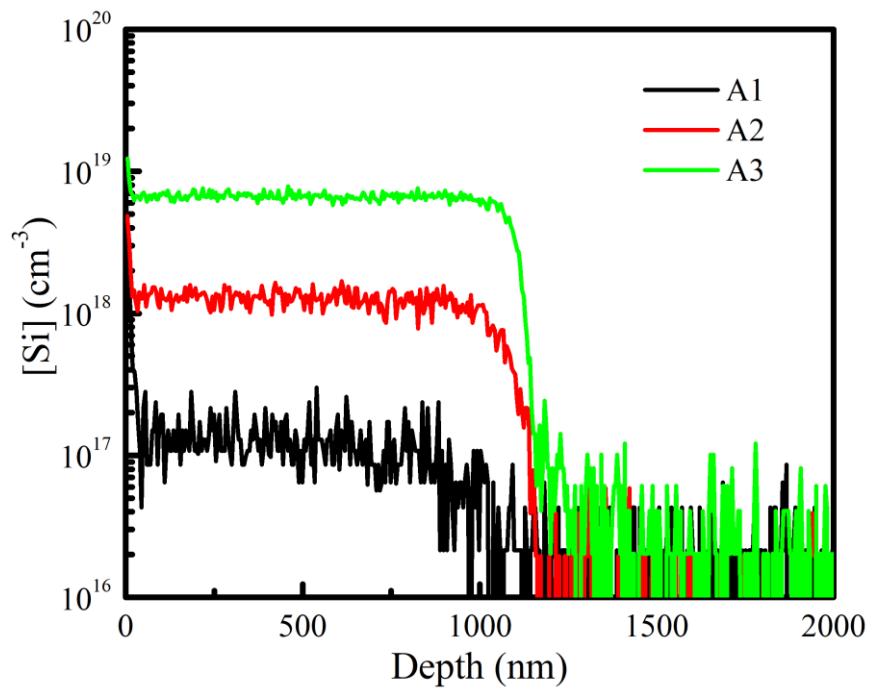
<sup>2</sup> Center of Materials Science and Optoelectronics Engineering, University of Chinese Academy of Sciences, Beijing 100049, China

<sup>3</sup> Suzhou Institute of Nano-tech and Nano-bionics, Chinese Academy of Sciences, Suzhou 215123, China; lqzhang2012@sinano.ac.cn

\* Correspondence: dgzhao@red.semi.ac.cn; Tel.: +86-10-8230-4312



**Figure S1.** Secondary ion mass spectroscopy results of carbon impurity in samples A0–I0.



**Figure S2.** Secondary ion mass spectroscopy results of Si concentration in samples A1–A3.