Abstract Submitted
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**High growth rate of GaN homoepitaxy by molecular beam epitaxy using high density nitrogen radical source**[1] YOHJIRO KAWAI, YOSHIO HONDA, MASAHITO YAMAGUCHI, HIROSHI AMANO, SHANG CHEN, HIROKI KONDO, Nagoya University, MINEO HIRAMATSU, Meijo University, MASARU HORI, Nagoya University — The key issues for the GaN growth by RF-plasma-assisted molecular beam epitaxy (MBE) are the low growth rate compared with the growth rate obtained using an ammonia-source. To reduce the processing time and to improve the crystalline quality of the epilayer, a high-density radical source (HDRS) with high stability has been developed. The growth rate of GaN was more improved using the HDRS than using a conventional radical source (CRS). During the growth, a sharp streak pattern obtained by reflection high-energy electron diffraction (RHEED) was maintained. An atomically smooth surface was confirmed by atomic force microscopy (AFM).

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