

Reactive ion etching of GaN and GaAs: Radially uniform processes for rectangular, smooth sidewalls

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Vertical and smooth cutting of GaN has been demonstrated applying reactive ion etching (RIE) in capacitively coupled plasmas using parallel-plate reactors (common RIE) and in plasmas driven by electron cyclotron resonance (ECR). The radial uniformity across 50 mm (2 in.) is no issue in ECR-driven plasmas and can be effectively improved in parallel-plate reactors by using shower heads with one central hole only, provided the wafer is centrally placed. © 1999 American Vacuum Society. [S0734-2101(99)01701-7]