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(54) Title: GALLIUM NITRIDE HIGH ELECTRON MOBILITY TRANSISTORS (HEMTs) HAVING REDUCED CURRENT COLLAPSE AND POWER ADDED EFFICIENCY ENHANCEMENT

(57) Abstract: A High Electron Mobility Transistor structure having: a GaN buffer layer disposed on the substrate; a doped GaN layer disposed on, and in direct contact with, the buffer layer, such doped GaN layer being doped with more than one different dopants; an unintentionally doped (UID) GaN channel layer on, and in direct contact with, the doped GaN layer, such UID GaN channel layer having a 2DEG channel therein; a barrier layer on, and in direct contact with, the UID GaN channel layer. One of the dopants is beryllium and another one of the dopants is carbon.

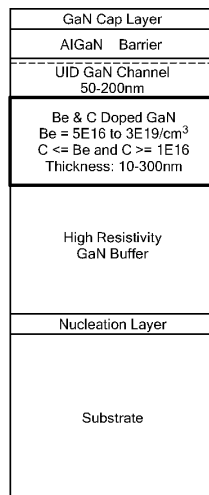


FIG. 2

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- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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