عنوان مقاله:
Design and Simulation of an Ultraviolet GaN LED

محل انتشار:
دوازدهمین کنفرانس ملی مهندسی برق مجلسی (سال: 1402)

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خلاصه مقاله:

This work presents the design and simulation of AlGaN/GaN based UV-A LED on a sapphire substrate. We used periodic layers as multiple-quantum-well to reach better optoelectronic properties and used EBLs to reduce the leakage current in modern multi-quantum-well. We deposited ITO as a top layer and Ni/Au to form ohmic contacts to p-type GaN and approach higher frequency response. We performed simulation by "SILVACO Software" and followed the fabrication process based on "ATHENA" rules and techniques.

کلمات کلیدی:
Silvaco, LED, Ultraviolet, Deposition, Etching, Athena, Ohmic contact, Oxide, GaN

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