



## Group Iii-V Nitride-Based Light Emitting Devices Having Multilayered P-Type Contacts

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### The Invention

Light-emitting devices having a multiple quantum well (MQW) pin diode structure are provided. The light-emitting devices include a multilayered p-type contact composed of a heavily p-type doped hole injection layer and a thin p-type group III-nitride layer. The materials of the hole injection layer and the p-type group III-nitride layer are separated by a layer of a material that allows current tunneling through the heterogeneous junction formed between the lattice mismatched materials.

### Additional Information

#### For More Information About the Inventors

- [Zhenqiang Ma](#)

#### Tech Fields

- [Semiconductors & Integrated Circuits : Design & fabrication](#)

For current licensing status, please contact Jeanine Burmania at [jeanine@warf.org](mailto:jeanine@warf.org) or 608-960-9846