



## High Performance, High Electron Mobility Transistors With Graphene Hole Extraction Contacts

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### The Invention

Radiation detectors based on high electron mobility transistors (HEMTs) are provided. Methods for detecting ultraviolet radiation using the HEMTs are also provided. The transistors are constructed from an intrinsic high bandgap semiconductor material with a built-in polarization field sandwiched between graphene and a two-dimensional electron gas (2DEG).

### Additional Information

#### For More Information About the Inventors

- [Zhenqiang Ma](#)

#### Tech Fields

- [Analytical Instrumentation, Methods & Materials : Sensors](#)

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