



COMPOUND SEMICONDUCTOR BASED RANDOM ACCESS MEMORY

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Static Random Access Memory (SRAM) based memory devices may be preferable in some applications because of their high speed and lower power consumption. SRAM cells are made of silicon (Si) based transistors and while Si based transistors are suitable for operation at normal (e.g., room) temperatures, the operation of Si based transistors, and therefore, operation of SRAM cells, may break down at high or extremely high temperatures.

The Invention

UW-Madison researchers have created methods and structures for high temperature SRAM memory using compound semiconductors (like GaN). These high temperature transistors are used to create new forms of memory that can be accessed individually. The designs leverage inverters instead of the wires that traditionally connect the transistors. The SRAM cells can be used to provide either RAM or ROM functionality.

Additional Information

For More Information About the Inventors

- [Chirag Gupta](#)

Tech Fields

- [Information Technology : Hardware](#)
- [Semiconductors & Integrated Circuits : Components & materials](#)

For current licensing status, please contact Jeanine Burmania at jeanine@warf.org or 608-960-9846