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Electron microscopy study of beyond-CMOS materials
nCORE SMART Center

- Successful demonstration of real-time breakdown of spintronic magnetic tunnel junction (MTJ) based magnetic random-access memory (MRAM).
- Researchers discovered that the layers within the device get pinched, forming a "pinhole," which leads to malfunction and eventual burnout.
- The startling discovery was that this happened at lower temps than previously expected.
- Results will improve understanding the operational ranges of these promising devices built for MRAM.

Failure Characterization of beyond-CMOS Materials & Devices



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