A novel 2-bit/cell MONOS memory device with a wrapped-control-gate structure that applies source-side hot-electron injection

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We have proposed a novel 2-bit/cell MONOS memory structure that features a wrapped gate. Programming and erasing are by source-side hot-electron injection and hot-hole injection, respectively. With this device, programming speeds < 1 µs with a programming current < 2 µA/µm, and erasing speeds < 10 µs have been achieved.