

Two-Dimensional Materials and Devices to Enable the Future of Artificial Intelligence

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Abstract

The end of traditional transistor scaling and the insatiable need for compute in artificial intelligence (AI) training and inference brings unprecedented new opportunities to semiconductor devices and electronics. Two-dimensional materials, such as transition metal dichalcogenides (TMDs), are uniquely positioned to address many of the technological needs of this new revolution. This seminar will describe our recent work on growth, fabrication technology and reliability of molybdenum disulfide (MoS_2) and tungsten diselenide (WSe_2) transistors to enable this vision.

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References

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Figures

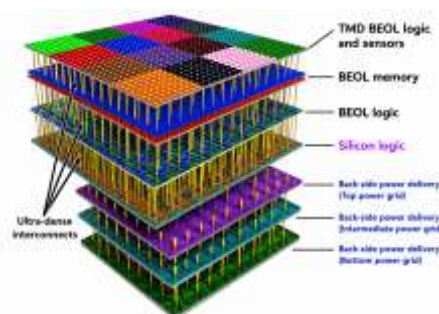


Figure 1: Diagram of future electronic microsystems integrating 2D materials logic, memory and power management above and below Si CMOS logic.