

Special Issue

Micro/Nanoscale Semiconductor Memory Devices

Message from the Guest Editor

The development of semiconductor memory devices has led to the era of the Internet of Things, where electronic devices are connected everywhere. In the early 2000s, geometric scaling of memory devices was one of the biggest driving forces for improving performance and increasing memory capacity to meet demands. However, due to the fundamental limitation of the silicon material, which is the main component of the devices, scaling has become a major challenge. To overcome this problem, approaches have been proposed that can be classified into two types: three-dimensional stacked memory and emerging resistive memory technologies. Therefore, the aim of this Special Issue is to provide research papers, short communications, and review articles that discuss and report on recent developments of semiconductor memory devices for possible applications such as high-density, storage-class, and neuromorphic computing.

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