



Design and Application of 3D Semiconductor Devices

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Message from the Guest Editors

Dear Colleagues,

The demand for modern semiconductor technology is unprecedented, driven by the insatiable thirst for faster, more powerful electronic devices across various industries. From smartphones to supercomputers, the relentless pursuit of devices necessitates breakthroughs in semiconductor technology. However, this pursuit is accompanied by formidable challenges, particularly in power delivery and transistor design. One significant challenge lies in optimizing power delivery, especially through innovative approaches like backside power delivery (BPD). Moreover, the evolution of smaller and more efficient devices hinges on advancements in transistor technology, particularly complementary field-effect transistors (cFETs). These transistors offer superior performance and energy efficiency, which are critical for meeting the demands of modern electronics. Additionally, leveraging low-dimensional channel materials presents a promising avenue for enhancing transistor performance. By harnessing the unique properties of these materials, researchers aim to overcome current limitations and unlock new possibilities for semiconductor technology.





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Message from the Editor-in-Chief

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