Special Issue

Recent Breakthroughs in Semiconductor Lasers

Message from the Guest Editors

This Special Issue focuses on the recent breakthroughs of novel, high-performance semiconductor lasers for various applications, including communication, sensing, and display applications. In recent years, considerable progress has been made in the development of semiconductor lasers. On the one hand, demand for emerging applications drives research into high-performance semiconductor lasers. For example, for coherent communication, a laser with high power and narrow linewidth output is desired, as is frequency-modulated continuous-wave radar (FMCW) LiDAR for self-driving applications, and high-performance fully visible spectrum lasers (red, green, and blue) for rapidly growing AR/VR display applications. On the other hand, the development of semiconductor lasers is driven by new physics applied to lasers, such as topological-cavity lasers.

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