Special Issue

Semiconductor Quantum Wells and Superlattices

Message from the Guest Editor

Semiconductor quantum wells (QWs) and their multilayer counterparts, so-called superlattices (SLs), are crucial cores of many optoelectronic devices, such as light emitters as well as advanced detections systems and solar cells. At present, they are being used as active parts of many devices intended for emission, detection, and light conversion in a broad spectral range of electromagnetic fields. Such low-dimensional systems have been successfully used in so-called blue electronics based on wide-gap semiconductors such as GaN or ZnO, and on the other side of the electromagnetic spectrum, in the infrared range from micrometer to millimeter waves (terahertz frequencies) utilizing narrow gap semiconductors, type II band lineup systems, and inter- and intraband transitions in cascaded schemes. Laser and photodetector applications based on narrow gap semiconductors, their broken gap combinations such as InAs, InSb, and GaSb using quantum cascade lasers,

Guest Editor

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