

**Abstract****ARTICLE COMPRISING A QUANTUM WELL LASER**

The quantum well lasers according to the invention comprise an electron stopper layer (36) that provides a barrier for the flow of electrons from the active region (37) to the p-side waveguide (35) and cladding (34) layers and in preferred embodiments also comprise a hole stopper layer (38) that provides a barrier for the flow of holes from the active region (37) to the n-side waveguide (39) and cladding (40) layers. An exemplary InP-based laser according to the invention comprises AlInGaAs quantum well layers and barrier layers, and an AlInAs electron stopper layer and an InP hole stopper layer. Lasers according to the invention can have relatively low temperature dependence of, e.g., threshold current and/or external quantum efficiency, and may be advantageously incorporated in, e.g., optical fiber communication systems.