

Characteristics of Photoluminescence in Resonant Quasiperiodic Double-period Quantum Wells

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Abstract : Characteristics of photoluminescence (PL) in a resonant quasi-periodic double-period quantum wells (DPQW) are demonstrated. The maximum PL intensity in the DPQW is remarkably greater than that in a traditional periodic QW (PQW) under the Bragg or anti-Bragg conditions. The optimal PL spectrum in the DPQW has an asymmetrical form instead of the symmetrical form in the PQW. Moreover, there are two large values of PL intensity in the DPQW, which also differs from the PQW.

Keywords : Photoluminescence, quantum wells, quasiperiodic structure

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