


## Passivation of growth defects in GaAs/AlGaAs multiple quantum well structures by CF<sub>4</sub> plasma

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### Abstract

The effect of low-energy plasma treatment on GaAs/AlGaAs multiple quantum wells structures has been studied by CW and time-resolved photoluminescence. An increase of the photoluminescence intensity of quantum wells below the plasma damaged region is observed. The concentration of nonradiative centers in these QWs is reduced by a factor of 30 after a 40 s exposure to a CF<sub>4</sub> plasma.

**Author Keywords:** Plasma treatment; Defect passivation; Photoluminescence

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