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Characterization of Inx Ga1-x As-GaAs heterostructures via electron beam techniques ESTELA GOMEZ-BAROJAS, CIDS-IC, BUAP, RUTILO SILVA-GONZALEZ, Instituto de Física, BUAP, ROSA MARIA SERRANO-ROJAS, Fac. Ingenieria Quimica, MIGUEL ANGEL VIDAL-BORBOLLA, IICO, UASLP — In the case of strained superlattices abrupt heterointerfaces are required because compositional fluctuations at heterointerfaces results in uncertainty in both composition and lattice constant. The aim of this work is to study exsitu the surface morphology, the periodicity and elemental composition of a set of 3 InGaAs-GaAs heterostructures grown on GaAs (100) substrates by a molecular beam epitaxy system. The heterostructures are formed by 10 periods of InGaAs-GaAs epitaxially grown on GaAs substrates with nominal thickness of 500 and 1000 Å, respectively. The techniques used for this purpose are the scanning electron microscopy (SEM) and Auger electron spectroscopy (AES). The In content in the heterostructures is determined from corresponding Auger depth profiles. This work has been supported by VIEP-BUAP, Project No. II53G02.

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