

Abstract Submitted  
for the MAR13 Meeting of  
The American Physical Society

**Micro-Raman study of InAs/GaSb superlattices from front and cleaved edge**<sup>1</sup> HENAN LIU, YONG ZHANG, UNC-Charlotte, SHUN LIEN CHUANG, University of Illinois at Urbana-Champaign, RUSSELL DUPUIS, Georgia Institute of Technology, AMY LIU, IQE, Inc — The InAs/GaSb superlattice (SL) has a “broken-gap” type II band alignment, with its effective bandgap being able to be tuned by changing the thickness of individual layers. Therefore, it is of great interest for mid- and far-IR detection. Because the SL does not have common cation or anion at the interface, there are two types of interfacial layers: InSb and GaAs, that impact the device performance. We investigate the SLs grown on either GaSb or InAs substrate and with difference interfacial treatment using confocal micro-Raman spectroscopy on both front surface and cleaved edge of the epilayer with polarization.

<sup>1</sup>Work supported by ARO/MURI.

Henan Liu  
UNC-Charlotte

Date submitted: 18 Nov 2012

Electronic form version 1.4