

Abstract Submitted  
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**Impact of the substrate on the transport parameters of InAs/In<sub>1-x</sub>Ga<sub>x</sub>Sb Superlattices** ARTHUR SIWECKI, HENRY BOURASSA, R. BERNEY, MO AHOJJA, SAID ELHAMRI, Department of Physics, University of Dayton, Dayton, Ohio 45469, WILLIAM MITCHEL, HEATHER HAUGAN, SHIN MOU, GAIL BROWN, Air Force Research Laboratory, Materials and Manufacturing Directorate, Wright-Patterson AFB, Ohio 45433-7707 — It is shown that n-type InAs/InGaSb superlattices can be electrically isolated from lightly doped n-type GaSb substrates at much higher temperatures than from the more common p-type GaSb substrates without the use of a large bandgap insulating layer. Transport measurements show superlattice conduction up to near room temperature. It is argued that the isolation is due to the n/p/n junction created by the substrate/buffer layer superlattice structure.

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