



ELECTRONIC MATERIALS TECHNOLOGY NEWS

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Northwestern InSb Research Revisited

Last month, we brought you an item concerning results out of Northwestern University's Center for Quantum Devices (CQD) which suggested a major breakthrough in carrier lifetimes has been achieved in quantum well infrared photodetectors (QWIPs) for long wavelengths focal plane arrays fabricated from indium antimonide (InSb) materials. The arrays were produced by CQD graduate student Erick Michel, and the resulting lifetimes were measured at 200 ns at 80K. The work is a collaboration between the Center and Lockheed/Martin/Fairchild systems.

Unfortunately, the story melded information from two programs. While the Center is working on QWIPs, the work discussed above involve simple InSb p-n junction devices. Mr. Michel, working under the direction of Professor Manijeh Razeghi (MLSB Room 4051, 2225 N. Campus Dr., Evanston, IL 60208; Tel: 847/491-

7251, Fax: 847/467-1817), has indeed been growing InSb layers on semi-insulating gallium arsenide substrates. The properties displayed by the material system approach what would be expected of InSb bulk material.