

Applied Physics

University of New Mexico reports research in applied physics

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"The ground state linewidth enhancement factor ($\alpha(H)$ -factor) is found to be enhanced from similar to 1 to similar to 14 as the bias current is increased beyond the threshold value. As a consequence of the variation in the $\alpha(H)$ -factor, the feedback sensitivity of the quantum dash semiconductor laser is dramatically affected over the entire range of operational currents," wrote F. Grillot and colleagues, University of New Mexico. The researchers concluded: "The onset of its critical feedback regime, which is incompatible with data transmission, is shown to exhibit a variation of approximately 20 dB for the quantum dash device." Grillot and colleagues published the results of their research in *Applied Physics Letters* (Variation of the feedback sensitivity in a 1.55 μm InAs/InP quantum-dash Fabry-Perot semiconductor laser. *Applied Physics Letters*, 2008;93(19):91108). For additional information, contact F. Grillot, University of New Mexico, Center High Technology Materials, 1313 Goddard SE, Albuquerque, NM 87106, USA. The publisher of the journal *Applied Physics Letters* can be contacted at: American Institute Physics, Circulation & Fulfillment Division, 2 Huntington Quadrangle, Ste. 1 N O 1, Melville, NY 11747-4501, USA. Keywords: Data Transmission, Electronics, SemiconductorPhysics, University of New Mexico. This article was prepared by Electronics Newsweekly editors from staff and other reports. Copyright 2009, Electronics Newsweekly via VerticalNews.com.

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