

Tom Tiedje

Physics and Astronomy, Electrical and Computer Engineering
PhD, MSc Physics UBC, BAsC Engineering Science, U. of Toronto

Employment History

Visiting professor, Tohoku U., Sendai, Japan 2005

Head, Physics and Astronomy, 1997-2002

Visiting scientist, FZ Juelich, Germany 1997

Director AMPEL 1994-1997

Corporate Research, Exxon Research and Engineering Co, Annandale NJ 1977-1987

Recent Publications

1. S. Tixier, **S. E. Webster**, **E. C. Young**, T. Tiedje, S. Francoeur, A. Mascarenhas, P. Wei, and F. Schiettekatte, "Bandgaps of the dilute quaternary alloys $\text{GaN}_x\text{As}_{1-x-y}\text{Bi}_y$ and $\text{Ga}_{1-y}\text{In}_y\text{N}_x\text{As}_{1-x}$ " Appl. Phys. Lett. 86, 112113 (2005)
2. M. J. Seong, S. Francoeur, S. Yoon, A. Mascarenhas, S. Tixier, **M. Adamcyk**, T. Tiedje, "Bi-induced vibrational modes in GaAsBi", Superlattices and Microstructures 37, 394-400 (2005)
3. **A. Ballestad**, **B. Lau**, **J.H. Schmid**, and T. Tiedje, "Nonlinear growth in GaAs molecular beam epitaxy", Mater. Res. Soc. Symp. Proc. 859E, JJ9.6.1 (2005)
4. **E. C. Young**, S. Tixier, T. Tiedje, "Bismuth Surfactant Growth of the Dilute Nitride $\text{GaN}_x\text{As}_{1-x}$ " J. Cryst. Growth 279, 316-320 (2005).
5. P. Wei, S. Tixier, M. Chicoine, S. Francoeur, A. Mascarenhas, T. Tiedje, F. Schiettekatte, "Ion beam characterization of $\text{GaAs}_{1-x-y}\text{N}_x\text{Bi}_y$ epitaxial layers", Nucl. Inst. Methods B 219-220, 671-675 (2004).
6. **J. H. Schmid**, **R. Mar**, T. Tiedje, "Surface Pattern Transfer in GaAs with Molecular Beams of Chlorine", Phys. Rev. B 70, 045315 (2004).
7. **A. Ballestad**, T. Tiedje, **J. Schmid**, "Comment on "Transient Evolution of Surface Roughness on Patterned GaAs(001) During Homoepitaxial Growth", Phys. Rev. Lett. 93, 159604 (2004)
8. **A. Ballestad**, T. Tiedje, **J. Schmid**, B. Ruck, and **M. Adamcyk**, "Predicting GaAs surface shapes during MBE regrowth on patterned substrates" J. Cryst. Growth 271, 13-21 (2004).
9. T. Tiedje, **K. A. Mitchell**, **Bayo Lau**, **A. Ballestad**, **E. Nodwell**, "Radiation Transport Model for Ablation Hollows on Snow Fields", J. Geophys. Res. – Earth Surf. (manus. 205JF000395 sub. 2005)
10. **E.C. Young**, A.N. Koveshinikov, S. Tixier, T. Tiedje and K.L. Kavanagh, "Strain relaxation by $\langle 100 \rangle$ misfit dislocations in dilute nitride semiconductors" submitted to *Physica Status Solidi*, May 15, 2005, 10 journal pages.

Student Award

A. Ballestad receives Silver Award from Materials Research Society for work on surface morphology (one of 15 top presentations out of 900 student papers presented in Boston, 2004)