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***EDUCATION*:**

Doctorate
The University of Texas at Austin, 2001
Major Work: Solid State Electronics Minor Work: Physics
GPA: 4.0/4.0

Master of Science in Engineering
The University of Texas at Austin, 1998
Major Work: Solid State Electronics Minor Work: Physics
GPA: 4.0/4.0

Bachelor of Science
Yale University, 1992
Major Work: Applied Physics
GPA: 3.3/4.0

EXPERIENCE:

June 2005 - Present Terrestrial Photovoltaics Principal Engineer
Spectrolab, Inc., Sylmar, California
- Program management: integration of design, process, test and assembly improvements to bring terrestrial concentrator cells into production
- Design and verification of multijunction solar cells for terrestrial concentrator systems

June 2001 – Present Space Photovoltaics Project Engineer
Spectrolab, Inc., Sylmar, California
- Program management
- Research and development of III-V multijunction solar cells:
  (device modeling and design, experimental design, execution, and analysis)
- Research and development of avalanche photodetectors

January 1997 - May 2001 Research Assistant
Microelectronics Research Center, The University of Texas at Austin
Dr. Joe C. Campbell, Advisor
- Design, fabrication, and characterization of record gain-bandwidth avalanche photodetectors
- Demonstration of wedge facet design for improved efficiency in edge-coupled photodetectors
- Design, fabrication, and characterization of the first waveguide avalanche photodetectors on GaAs
- Design, fabrication, and characterization of the first waveguide avalanche photodetectors operating at 1.55 μm
- Design, fabrication, and characterization of high-sensitivity resonant-cavity and high-speed waveguide GaNAs avalanche photodetectors operating at 1.064 μm
- Design, fabrication, and characterization of a photodetector with a spectral notch filter at 1.55 μm

January 1996 - January 1997 Research Assistant
Microelectronics Research Center, The University of Texas at Austin
Dr. Jack Lee, Advisor
- Investigation of properties of wet & dry oxides grown on GaAs
- Characterization of carbon-implanted native oxides on silicon

January 1993 - January 1995 U.S. Peace Corps Volunteer
Zimbabwe
- Teaching of Science, Mathematics, English, and History at a rural secondary school
- Coordination of funding and construction of a science laboratory building
- Organization of a tree-planting program

***HONORS*:**

College of Engineering Graduate Fellowship, 1995-1999
Microelectronics and Computer Development Fellowship, 1995-1997
Loral Fellowship, 1996
Bruton Fellowship, 1997
Tau Beta Pi

Publications

1. G. S. Kinsey, R. A. Sherif, R. R. King, H. L. Cotal, and N. H. Karam
"Concentrator Multijunction Solar Cells for Utility-Scale Energy Production"
Conference Proceedings. ESW 2005. October, 2005.

2. G. S. Kinsey, M. Haddad, H. Yoon, K. Edmondson, C. M. Fetzer, R. R. King, and R. A. Sherif
"Optimization of High-Concentration Multijunction Solar Cells"
Conference Porceedings. Int'l Conference on Solar Concentrators, May, 2005.

3. N. Li, H. Chen, S. Demiguel, X. Li, J. C. Campbell, T. D. Isshiki, G. S. Kinsey and R. Sudharsanan
"High-power InGaAs/InP charge-compensated uni-traveling-carrier balanced photodetector"
Conference Proceedings. LEOS 2004. 17th Annual Meeting.

4. G. V. Karve, S. Wang, F. Ma, X. Li, J. C. Campbell, R. Ispasoiu, D. S. Bethune, B. Risk, G. S. Kinsey, J. C. Boisvert, T. D. Isshiki and R. Sudharsanan
"Study of dark counts in Geiger mode $In_{0.53}Ga_{0.47}As/In_{0.52}Al_{0.48}As$ SACM APD"
Conference Proceedings. LEOS 2004. 17th Annual Meeting.

5. Ning Li; Xiaowei Li; Demiguel, S.; Xiaoguang Zheng; Campbell, J.C.; Tulchinsky, D.A.; Williams, K.J.; Isshiki, T.D.; Kinsey, G.S.; Sudharsansan, R.;
"High-saturation-current charge-compensated InGaAs-InP uni-traveling-carrier photodiode"
Photonics Technology Letters, IEEE , vol. 16, no. 3, pp.864 – 866, March 2004

6. N. Li, H. Chen, S. Demiguel, X. Li, J.C. Campbell, T.D. Isshiki, G.S. Kinsey, and R. Sudharsansan,
"High-power charge-compensated unitravelling-carrier balanced photodetector,"
Photonics Technology Letters, vol. 16, no. 3, pp. 864-866, March 2004.

7. N. Li, X. Li, S. Demiguel, X. Zheng, J.C. Campbell, D.A. Tulchinsky, K.J. Williams, T.D. Isshiki, G.S. Kinsey, and R. Sudharsansan,
"High-saturation-current charge-compensated InGaAs–InP uni-traveling-carrier photodiode"
Photonics Technology Letters, vol. 16, no. 3, pp. 864-866, March 2004.

8. J. C. Boisvert, A. Masalykin, G. Kinsey, M. Haddad, R. Sudharsanan, X. Zheng, and J. C. Campbell
"Characterization of InAlAs/InGaAs APD arrays for SWIR imaging applications"
SPIE Defense and Security Symposium, 2004.

9. T. Isshiki, D.W. McAlister, G. Kinsey, J. C. Boisvert, R. Sudharsanan, and N.H. Karam
"MOVPE growth and characterization of carbon-doped InAlAs/InGaAs avalanche photodiode structures"
11th Biennial Workshop on OMVPE, 2003.

10. R. Sudharsanan, J. Boisvert, G. S. Kinsey, and N. H. Karam
"Low-noise InGaAs avalanche photodiode (APD) infrared sensors and arrays for military applications"
5th Boeing Technical Excellence Conference, 2003.

11. H. Yoon, R.R. King, G.S. Kinsey, S. Kurtz, and D.D. Krut
"Radiative coupling effects in GaInP/GaAs/Ge multijunction solar cells"
Proceedings of 3rd World Conference on Photovoltaic Energy Conversion, v. 1, pp. 745 – 748, May 2003.

12. J.E. Granata, C. Fetzer, J.H. Ermer, R.R. King, K. Edmondson, A. Stavrides, P. Hebert, P. Colter, G.S. Kinsey, H. Yoon, M.S. Gillanders, N. Beze, K. Bui, J. Hanley, N.H. Karam, and B.T. Cavicchi
"Ultra triple junction GaInP/sub 2//GaAs/Ge solar cells: cell design and qualification status"
Proceedings of 3rd World Conference on Photovoltaic Energy Conversion, v. 1, pp. 654 - 657, May 2003.

13. Karve, G.; Zheng, X.; Holmes, A.L.; Campbell, J.C.; Kinsey, G.S.; Boisvert, J.C.; Isshiki, T.D.; Sudharsanan, R.; Bethune, D.S.; Risk, W.P.
"$In_{0.53}Ga_{0.47}As/In_{0.52}Al_{0.52}As$ SACM APDs for single photon detection"
Lasers and Electro-Optics Society, LEOS 2003, vol. 2, pp. 769 – 770, 2003.

14. G. Karve, Xiaoguang Zheng, Xiaofeng Zhang, Xiaowei Li, Ning Li, Shuling Wang, Feng Ma, A. Holmes, J.C. Campbell, G.S. Kinsey, J.D. Boisvert, T.D. Isshiki, R. Sudharsanan, D.S. Bethune, and W.P. Risk
"Geiger mode operation of an $In_{0.53}Ga_{0.47}As$-$In_{0.52}Al_{0.48}As$ avalanche photodiode"
IEEE Journal of Quantum Electronics, vol.39, no. 10, pp. 1281 -1286, October 2003.

15. R. R. King, C. M. Fetzer, P. C. Colter, K. M. Edmondson, D. C. Law, A. P. Stavrides, H. Yoon, G. S. Kinsey, H. L. Cotal, J. H. Ermer, R. A. Sherif, K. Emery, W. Metzger, and R. K. Ahrenkiel, and N. H. Karam
"Lattice-matched and metamorphic GaInP/GaInAs/Ge concentrator solar cells"
Proceedings of the 3rd World PV Conference, 2003.

16. G. S. Kinsey, R. R. King, K. M. Edmondson, A. P. Stavrides, H. Yoon, C. M. Fetzer, P. C. Colter, J. H. Ermer, M. S. Gillanders, P. Hebert, J. E. Granata, and N. H. Karam
"Ultra high-efficiency triple-junction solar cells"
IEEE Aerospace and Electronics Systems Magazine, vol. 18, no. 3, pp. 8-10, March 2003.

17. G. S. Kinsey, J. D. Boisvert, T. Chau, C. E. Allevato, T. Isshiki, M. Haddad, and R. Sudharsanan
"Growth and characterization of InAlAs avalanche photodiode structures in a multi-wafer production MOVPE reactor"
CS-Max 2002 Technical Digest, p. 193, 2002.

18. R. R. King, C. M. Fetzer, P. C. Colter, K. M. Edmondson, J. H. Ermer, H. L. Cotal, H. Yoon, A. P. Stavrides, G. S. Kinsey, D. Krut, and N. H. Karam
"High-efficiency space and terrestrial multijunction solar cells through bandgap control in cell structures"
Proceedings of the 29th IEEE Photovoltaic Specialists Conference, 2002.

19. G. S. Kinsey, R. Sidhu, A. L. Holmes, Jr., and J. C. Campbell
"Improved optical coupling in waveguide photodetectors incorporating a wedge-shaped input facet"
Optics Letters, vol. 27, no. 9, pp. 749-750, May 2002.

20. G. S. Kinsey, J. C. Campbell, and A. G. Dentai
"Waveguide avalanche photodiode operating at 1.55μm with a gain-bandwidth product of 320GHz"
Photonics Technology Letters, v. 13, n. 8, pp. 842-844, 2001.

21. D. Gotthold, S. Govindaraju, J. Reifsnider, G. Kinsey, J. Campbell, and A. Holmes
"Molecular-beam epitaxy growth of Ga(In)NAs/GaAs heterostructures for photodiodes"
Journal of Vacuum Science & Technology B (Microelectronics and Nanometer Structures), vol. 19, no. 4, July 2001, pp. 1400-3.

22. X. G. Zheng, X. Sun, S. Wang, P. Yuan, G. S. Kinsey, A. L. Holmes, B. G. Streetman, and J. C. Campbell
"Multiplication noise of $Al_x/Ga_{1-x}As$ avalanche photodiodes with high Al concentration and thin multiplication region"
Applied Physics Letters, vol.78, no.24, 11 June 2001, pp.3833-5.

23. G. S. Kinsey, R. Sidhu, A. L. Holmes, And J. C. Campbell
"High-speed waveguide avalanche photodetectors"
Device Research Conference 2001, pp. 149-150.

24. J. C. Campbell, Shuling Wang, X. G. Zheng, G. S. Kinsey, A. L. Holmes, Jr., X. Sun, R. Sidhu, and P. Yuan.
"Ultra-low-noise avalanche photodiodes"
Proceedings of the SPIE - The International Society for Optical Engineering
(*Physics and Simulation of Optoelectronic Devices IX*), vol. 4283, Jan. 2001, pp. 480-8.

25. J. C. Campbell, H. Nie, C. Lenox, G. Kinsey, P. Yuan, A. L. Holmes, Jr., and B. G. Streetman
"High speed resonant-cavity InGaAs/InAlAs avalanche photodiodes"
International Journal of High Speed Electronics and Systems, vol. 10, no. 1, March 2000, pp.327-37.

26. X. G. Zheng, P. Yuan, X. Sun, G. S. Kinsey, A. L. Holmes, B. G. Streetman, and J. C. Campbell
"Temperature dependence of the ionization coefficients of $Al_xGa_{1-x}As$"
IEEE Journal of Quantum Electronics, vol. 36, no. 10, Oct. 2000, pp.1168-73.

27. G. S. Kinsey, D. W. Gotthold, A. L. Holmes, Jr., and J. C. Campbell
"GaNAs resonant-cavity avalanche photodiode operating at 1.064μm"
Applied Physics Letters, vol. 77, no. 10, September 2000, pp.1543-4.

28. G. S. Kinsey, D. W. Gotthold, A. L. Holmes, Jr., B. G. Streetman, and J. C. Campbell
"GaNAs avalanche photodiode operating at 0.94μm"
Applied Physics Letters, vol. 76, no. 20, May 2000, pp.2824-5.

29. G. S. Kinsey, C. C. Hansing, A. L. Holmes, Jr., B. G. Streetman, J. C. Campbell, and
A. G. Dentai
"Waveguide $In_{0.53}Ga_{0.47}As/In_{0.52}Al_{0.48}As$ avalanche photodiode"
IEEE Photonics Technology Letters, vol. 12, no. 4, Apr. 2000, pp.416-8.

30. G. S. Kinsey, D. W. Gotthold, A. L. Holmes, Jr., and J. C. Campbell
"GaNAs avalanche photodiodes operating at 1.064mm"
Conference Proceedings. LEOS 2000. 13th Annual Meeting. IEEE Lasers and Electro-Optics Society 2000 Annual Meeting (Cat. No.00CH37080). IEEE. vol. 1, 2000, pp.13-4.

31. J. C. Campbell, H. Nie, C. Lenox, G. Kinsey, P. Yuan, A. L. Holmes, Jr., and B. G. Streetman
"High-speed, low-noise avalanche photodiodes"
Optical Fiber Communication Conference. Technical Digest Postconference Edition.
Trends in Optics and Photonics (IEEE Cat. No. 00CH37079), vol. 4, Mar. 2000, pp. 114-16.

32. C. Lenox, H. Nie, P. Yuan, G. Kinsey, A. L. Holmes Jr., B. G. Streetman, J. C. Campbell
"Resonant-Cavity InGaAs-InAlAs avalanche photodiodes with gain-bandwidth product of 290 Ghz"

IEEE Photonics Technology Letters, vol. 11, no. 9, Sept. 1999, pp.1162-4.

33. C. Lenox, H. Nie, G. Kinsey, C. Hansing, J. C. Campbell, A. L. Holmes Jr., B. G. Streetman.
"Substrate preparation and interface grading in InGaAs/InAlAs photodiodes grown on InP by molecular-beam epitaxy"
AIP for American Vacuum Soc. Journal of Vacuum Science & Technology B, vol. 17, no. 3, pp.1175-9, May-June 1999.

34. C. Lenox, H. Nie, P. Yuan, G. Kinsey, A. L. Holmes Jr., B. G. Streetman, J. C. Campbell
"Improved optical response of superlattice graded InAlAs/InGaAs p-i-n photodetectors"
Applied Physics Letters, vol. 73, no. 23, 7 Dec. 1998, pp.3405-7.

35. G. Kinsey, C. Lenox, H. Nie, J. C. Campbell, B. G. Streetman
"Resonant cavity photodetector with integrated spectral notch filter"
IEEE Photonics Technology Letters, vol. 10, no. 8, Aug. 1998, pp.1142-3.

36. K. A. Anselm, H. Nie, C. Hu, C. Lenox, P. Yuan, G. Kinsey, J. C. Campbell, B. G. Streetman.
"Performance of thin separate absorption, charge, and multiplication avalanche photodiodes"
IEEE Journal of Quantum Electronics, vol. 34, no. 3, March 1998, pp.482-90.

37. H. Nie, K. A. Anselm, C. Lenox, P. Yuan, C. Hu, G. Kinsey, B. G. Streetman, J. C. Campbell.
"Resonant-cavity separate absorption, charge and multiplication avalanche photodiodes with high-speed and high gain-bandwidth product"
IEEE Photonics Technology Letters, vol. 10, no. 3, March 1998, pp.409-11.

38. H. Nie, C. Lenox, G. Kinsey, P. Yuan, A. L. Holmes, Jr., B. G. Streetman, J. C. Campbell
"High speed and high gain-bandwidth-product resonant-cavity InGaAs/InAlAs avalanche photodiodes"
Optical Fiber Communication Conference 1999, and the International Conference on Integrated Optics and Optical Fiber Communication. OFC/IOOC '99. Technical Digest, vol. 1, pp. 99-101, 1999.

39. H. Nie, C. Lenox, G. Kinsey, P. Yuan, A. L. Holmes Jr., B. G. Streetman, J. C. Campbell
"Resonant-cavity InGaAs-InAlAs separate absorption, charge and multiplication avalanche photodiodes"
Conference Proceedings. LEOS'98. 11th Annual Meeting. IEEE Lasers and Electro-Optics Society 1998 Annual Meeting (Cat. No.98CH36243). IEEE. vol.1, pp.81-2, 1998.

40. C. Lenox, H. Nie, P. Yuan, G. Kinsey, C. Hansing, J.C. Campbell, A.L. Holmes, Jr., B.G. Streetman
"Growth of $In_{0.53}(Al_xGa_{1-x})_{0.47}As$ avalanche photodiodes on InP by MBE"
17th North American Conference on Molecular Beam Epitaxy, University Park, Pennsylvania, October 4-7, 1998.

41. C. Lenox, H. Nie, P. Yuan, G. Kinsey, C. Hansing, J.C. Campbell, A.L. Holmes, Jr., B.G. Streetman
"Thin Multiplication-Region InAlAs homojunction avalanche photodiodes grown on InP by MBE"
40th Electronic Materials Conference, Charlottesville, Virginia, June 24-26, 1998.

42. K. A. Anselm, P. Yuan, C. Hu, C. Lenox, H. Nie, G. Kinsey, J. C. Campbell, B. G. Streetman
"Characteristics of GaAs and AlGaAs homojunction avalanche photodiodes with thin multiplication regions"
Applied Physics Letters, vol. 71, no. 26, 29 Dec. 1997, pp.3883-5.