

Curriculum Vitae of Albert T. Rosenberger

Professional Preparation:

<i>Institution and Location</i>	<i>Field of Study</i>	<i>Degree/Year(s)</i>
Whitman College, Walla Walla, WA	Physics and mathematics	A.B. 1971
University of Chicago	Physics	S.M. 1972
University of Illinois, Urbana	Physics	Ph.D. 1979
University of Texas, Austin	Physics	Postdoc 1982-1985

Appointments:

Associate Professor, Oklahoma State University, 2002-present
Assistant Professor, Oklahoma State University, 1996-2002
Visiting Assistant Professor, Oklahoma State University, 1995-1996
Associate Professor, University of Alabama in Huntsville, 1989-1995
Assistant Professor, Southern Methodist University, 1985-1989
Lecturer and Postdoctoral Research Associate, University of Texas at Austin, 1982-1985
Assistant Professor, Western Illinois University, 1980-1982
Visiting Assistant Professor, Drexel University, 1979-1980

Publications:

Most closely related to the proposed project

1. M. J. Humphrey, E. Dale, A. T. Rosenberger, and D. K. Bandy, "Calculation of optimal fiber radius and whispering-gallery mode spectra for a fiber-coupled microsphere," submitted to J. Opt. Soc. Am. B.
2. A. Naweed, G. Farca, S. I. Shopova, and A. T. Rosenberger, "Induced transparency and absorption in coupled whispering-gallery microresonators," Phys. Rev. A (to be published April 2005).
3. S. I. Shopova, G. Farca, A. T. Rosenberger, W. M. S. Wickramanayake, and N. A. Kotov, "Microsphere whispering-gallery-mode laser using HgTe quantum dots," Appl. Phys. Lett. **85**, 6101-6103 (2004).
4. D. D. Smith, H. Chang, K. A. Fuller, A. T. Rosenberger, and R. W. Boyd, "Coupled-resonator-induced transparency," Phys. Rev. A **69**, 063804 (2004).
5. J. P. Rezac and A. T. Rosenberger, "Locking a microsphere whispering-gallery mode to a laser," Opt. Express **8**, 605-610 (2001), www.opticsexpress.org/abstract.cfm?URI=OPEX-8-11-605.

Other significant recent publications

6. J. P. Rezac and A. T. Rosenberger, "Locking and laser-frequency tracking of a microsphere whispering-gallery mode," in *Laser Resonators IV*, A. V. Kudryashov and A. H. Paxton, eds., Proc. SPIE **4270**, 112-119 (2001).
7. A. T. Rosenberger and J. P. Rezac, "Whispering-gallery-mode evanescent-wave microsensor for trace-gas detection," in *Biomedical Instrumentation Based on Micro- and Nanotechnology*, R. P. Mariella, Jr. and D. V. Nicolau, eds., Proc. SPIE **4265**, 102-112 (2001).

8. A. T. Rosenberger and J. P. Rezac, "Evanescent-wave sensor using microsphere whispering-gallery modes," in *Laser Resonators III*, A. V. Kudryashov and A. H. Paxton, eds., Proc. SPIE **3930**, 186-192 (2000).
9. T. V. Sarkisyan, A. T. Rosenberger, A. N. Oraevsky, and D. K. Bandy, "Gain and carrier temperature response of semiconductor laser media to short optical pulses," J. Opt. Soc. Am. B **17**, 840-850 (2000).
10. A. T. Rosenberger, "Nonlinear optical effects in the whispering-gallery modes of microspheres," in *Operational Characteristics and Crystal Growth of Nonlinear Optical Materials*, R. B. Lal and D. O. Frazier, eds., Proc. SPIE **3793**, 179-186 (1999).

Synergistic Activities:

Shortly after the appearance of the original research in Physical Review Letters, developed undergraduate lab experiments for studying chaotic circuits – not only their behavior (quantitatively), but also applications: synchronization and message encryption.

Four of six REU students supervised were members of underrepresented groups, as have been three of eight graduate students.

Involved, through several projects, in the development and transfer of technology to a small local high-tech company (Nomadics, Inc.), resulting in two patents (one issued, one pending).

Participated in the development of OSU's multidisciplinary Photonics PhD program.

Peer review: papers for at least ten journals, Research Corporation proposals, and NSF proposals (January 2004 EPDT panel).

Collaborators:

Prof. Donna K. Bandy, Oklahoma State University

Prof. Robert W. Boyd, University of Rochester

Dr. Kirk A. Fuller, University of Alabama in Huntsville

Prof. Nicholas A. Kotov, University of Michigan

Dr. Tigran V. Sarkisyan, AT&T Labs

Dr. David D. Smith, NASA Marshall Space Flight Center

Advisors and Advisees:

Graduate and Postdoctoral Advisors

Graduate: Thomas A. DeTemple, University of Illinois at Urbana-Champaign

Postdoctoral: H. Jeffrey Kimble, California Institute of Technology

Thesis Advisees and Postgraduate Scholars (total of 8 graduate students, 2 postdocs)

Jeromy P. Rezac, PhD 2002 (Physics), ITT Industries Advanced Engineering & Sciences

Siyka I. Shopova, PhD candidate (Photonics), Oklahoma State University

George Farca, PhD candidate (Physics), Oklahoma State University

Deepak Ganta, PhD candidate (Photonics), Oklahoma State University

Sitong Yuan, MS candidate (Photonics), Oklahoma State University

Lee Elizondo, MS candidate (Photonics), Oklahoma State University

Ahmer Naweed, Postdoctoral Fellow 2002-2004, Oklahoma State University

Michael J. Humphrey, Postdoctoral Fellow, Oklahoma State University