Presenter

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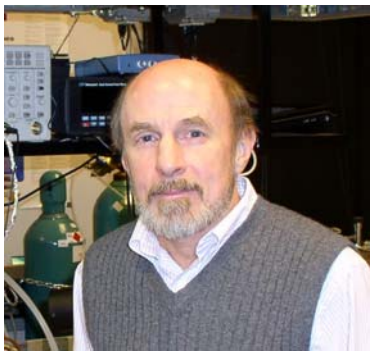

Abstract

Title: ***Whispering-Gallery Chemical Sensors and Quantum-Dot Microlasers***

The high-*Q* whispering-gallery modes of fused-silica microresonators have enabled the development of intracavity-absorption chemical sensors and ultralow-threshold quantum-dot lasers. The sensors can have effective absorption pathlengths of meters, and the lasers have pump thresholds of a few hundred nanowatts. Examples of both applications and some other experimental results will be presented.

Biography

Dr. Rosenberger *received the BA degree in physics and mathematics from Whitman College, the MS in physics from the University of Chicago, and the PhD in physics from the University of Illinois (Urbana-Champaign). He did a postdoc with Prof. Jeff Kimble at the University of Texas at Austin, and has taught at several universities. For the last twelve years, he has been at Oklahoma State University, where he is now Professor of Physics. His research interests have included superradiance, optical bistability, nonlinear dynamics, and, most recently, microresonator optics.*