Fall 2008 Seminar Series

F21C Bioprocessing & Biosensing Center

• DIVISION OF FOOD SYSTEMS & BIOENGINEERING •

Presenter: Dr. Radislav Potyrailo
General Electric Global Research Center
Niskayuna, NY

Title: One Century’s Magic, Another Century’s Science: Inside the Modern Industrial Spectroscopic Research

Abstract:
New requirements for analytical measurements in gas and liquid phases for biomedical, industrial, environmental, homeland protection, and other demanding applications push the limits of existing detection concepts and technologies to the point where we may reach their fundamental performance limits. Thus, without violating the laws of physics, chemistry, and electronics and without crossing the border into the 21st century science fiction, we need to develop new practical analytical concepts. This lecture will stimulate your spectroscopic senses by posing several fundamental and practical questions and demonstrating on how modern industrial research addresses these questions in the developments of spectroscopic tools and sensors with previously unthinkable capabilities.

Biography:
Radislav Potyrailo is a Principal Scientist and Project Leader with General Electric Global Research Center in Niskayuna, NY, and an Adjunct Industrial Professor in the Department of Chemistry, Indiana University, Bloomington, IN. He received an engineering degree in optoelectronic instrumentation from Kiev Polytechnic Institute, Ukraine, in 1985. After holding a Visiting Scientist position at the Department of Electrical and Computer Engineering, University of Toronto, he received his Ph.D. in Analytical Chemistry from Indiana University, Bloomington, IN, in 1998. His research is focused on the development of new sensing platforms, sensing materials, and microanalytical instrumentation. He has 45 issued U.S. patents; he has coauthored/coedited 7 books, published over 60 peer-reviewed papers, and given over 40 invited and keynote lectures at national and international technical meetings. He is the initiator and a co-organizer of the First Gordon Research Conference on Combinatorial and High Throughput Materials Science and other conferences and symposia on combinatorial methods in materials science and nanostructures for plasmonic sensing. Dr. Potyrailo is Editor of the Springer series Integrated Analytical Systems.

Date • Time • Location:
Tuesday, November 4 • 4:00 pm • Ag Eng Bldg 105 • Refreshments