

The Coblentz Society Selects Prof. Richard Van Duyne to receive the 2010 Bomem-Michelson Award

The Coblentz Society is pleased to announce that it has selected Prof. Richard Van Duyne of Northwestern University to receive the 2010 Bomem-Michelson Award. This award is dedicated to the memory of Professor A.E. Michelson, developer of the Michelson interferometer. ABB sponsors the award to honor scientists who have advanced the technique(s) of vibrational, molecular, Raman, or electronic spectroscopy.

Prof. Van Duyne is recognized for his record of achievement in the interrelated fields of surface enhanced Raman spectroscopy (SERS) and molecular plasmonics. Thirty plus years ago, Raman spectroscopy was one of the least sensitive and, consequently, most seldom used of all analytical tools. Today, it is, arguably, one of the most sensitive forms of molecular spectroscopy and is widely used, both in the laboratory and in the field. Van Duyne's work in SERS has, in no small measure, been the catalyst for this renaissance. In the past few years, Van Duyne has continued to make trail blazing contributions to unraveling the mechanism of SERS. He has also extended these mechanistic ideas to develop related surface-enhanced spectroscopies including infrared, second harmonic generation, and hyper-Raman. In the applications realm, Van Duyne's research has included significant new developments in electrochemistry, ultrahigh vacuum surface science, nanofabricated surfaces for SERS, the structure and function of surface confined cytochrome c, Raman spectroscopy of mass-selected clusters, art conservation, and the development of SERS-based sensors for glucose, lactate, anthrax, and chemical warfare agents. A significant portion of Van Duyne's most recent work has been in the related area of molecular plasmonics, referring to the interaction of molecules and either localized or propagating surface plasmons. He has explored the fundamental relationships between SERS and localized surface plasmon resonance (LSPR) spectroscopy. Nanosphere lithography (NSL) has greatly advanced our understanding of the size and shape dependent optical properties of metal nanoparticles, and he discovered that molecular adsorbates shift the LSPR wavelength of a nanoparticle so that it is a quantitative mass sensor. These discoveries led to the invention of nanoscale biosensors, most notably, for Alzheimer's disease.

The Award will be presented at the 2010 Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy, to be held February 28 – March 5 at the Orange County Convention Center, Orlando, FL. The ABB sponsored Bomem-Michelson Award Symposium is held in honor of the awardee and immediately follows the presentation. The Bomem Michelson Award Symposium will focus on the themes of Surface enhanced Raman spectroscopy and characterizing ever-decreasing sample sizes. Professor Van Duyne will give the opening award lecture on the "Exploring single molecule surface enhanced Raman spectroscopy". This will be followed by lectures by Geraldine L. Richmond (University of Oregon) on "Going Nonlinear to Study Processes at Liquid Surfaces", Christy L. Haynes (University of Minnesota) on "Surface-Enhanced Raman Scattering Sensors for Non-Traditional Analytes", Paul W. Bohn (University of Notre Dame) on "Chemistry at the Mesoscale: Adsorption/Desorption and Ultraslow Electrochemistry at Atom-Scale Junctions", and George C. Schatz (Northwestern University) on "New Developments in Plasmonic Nanoparticle Optical Property Modeling".

About The Coblentz Society

The Coblentz Society (<http://casnov1.cas.muohio.edu/coblentz/>) The Coblentz Society is a non-profit organization founded in 1954. Its purpose is to foster the understanding and application of vibrational spectroscopy. One of the Coblentz Society's primary missions is to bestow recognition upon professionals for excellence in the advancement of vibrational spectroscopy. These include the Coblentz Award, the Craver Award, the

Williams-Wright Award, the Bomem-Michelson Award (sponsored by ABB Bomem), the Lippincott Award (in conjunction with SAS and OSA); and Coblenz Student Awards are also given annually.

About The Pittsburgh Conference

The Pittsburgh Conference (Pittcon®) is the world's annual premier Conference and Exposition on laboratory science. It is organized by The Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy, a Pennsylvania not-for-profit educational corporation which is comprised of the Spectroscopy Society of Pittsburgh (SSP) and the Society for Analytical Chemists of Pittsburgh (SACP). Pittcon attracts nearly 20,000 attendees from industry, academia and government from 90 countries worldwide and is managed by a committee of volunteers and a 10-person staff. Proceeds from Pittcon fund science education and outreach at all levels, kindergarten through adult. The Pittsburgh Conference donates nearly a million dollars each year in the form of science equipment grants, research grants, scholarships and internships for students, awards to teachers and professors, and grants to public science centers, libraries and museums.

www.pittcon.org