

Richard P. Van Duyne  
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Richard P. Van Duyne is the Charles E. and Emma H. Morrison Professor of Chemistry at Northwestern University. He is known for the discovery of surface-enhanced Raman spectroscopy (SERS), the invention of nanosphere lithography (NSL), and development of ultrasensitive nanosensors based on localized surface plasmon resonance (LSPR) spectroscopy. His research interests include all forms of surface-enhanced spectroscopy, plasmonics and nanophotonics, nanoscale chemical/biological sensors, nanosphere lithography (NSL), atomic layer deposition (ALD), atomic force microscopy (AFM), scanning tunneling microscopy (STM), ultra-high vacuum (UHV) STM, UHV-tip-enhanced Raman spectroscopy (UHV-TERS), MALDI-TOF mass spectrometry, and surface-enhanced femtosecond stimulated Raman spectroscopy (SE-FSRS).

Professor Van Duyne has been recognized for his accomplishments with the Charles N. Reilley Award, Society for Electroanalytical Chemistry (2011), Election to the US National Academy of Sciences (2010), Bomem-Michelson Award, Coblentz Society (2010), Ellis R. Lippincott Award, Optical Society of America (2008), Professeur invite classe exceptionnelle – University Pierre et Marie Curie, Paris (2008), Special Creativity Award, National Science Foundation (2007), L’Oreal Art and Science of Color Prize (2006), Nobel Laureate Signature Award for Graduate Education, American Chemical Society (2005), Election to the American Academy of Arts and Sciences (2004), The Earle K. Plyler Prize for Molecular Spectroscopy, American Physical Society (2004), Excellence in Surface Science Award of the Surfaces in Biomaterials Foundation (1996), Pittsburgh Spectroscopy Award (1991), National Fresenius Award, American Chemical Society (1981), Coblentz Memorial Prize in Molecular Spectroscopy (1980), and an Alfred P. Sloan Research Fellowship (1974). He is also a fellow of both the American Physical Society (1985) and the American Association for the Advancement of Science (1983). Van Duyne received his B.S. degree from Rensselaer Polytechnic Institute (1967) and a PhD. degree in analytical chemistry from the University of North Carolina (1971).