



Arun Majumdar of Google to give plenary address on sustainable energy at 2013 MRS Spring Meeting

Arun Majumdar of Google will give the plenary address at the 2013 Materials Research Society Spring Meeting to be held April 1–5 in San Francisco. The plenary session will be held on Wednesday, April 3 at 6:30 p.m. in the San Francisco Marriott Marquis.

Access to affordable and reliable energy has been a cornerstone of the world's increasing prosperity and eco-

nomically growth since the beginning of the industrial revolution. Majumdar says society's use of energy in the 21st century must also be sustainable. In his presentation, "A New Industrial Revolution for a Sustainable Energy Future," Majumdar will provide a techno-economic snapshot of the current energy landscape and identify several research and development opportunities and challenges, particu-

larly related to materials research and engineering, to create the foundation for this new industrial revolution.

Currently a vice president for energy at Google, Majumdar is driving Google.org's energy initiatives and advising the company on its broader energy strategy. Prior to joining Google, Majumdar was the founding director of the US Advanced Research Projects Agency-Energy (ARPA-E) to innovate the future of energy technologies. During part of this time, he also served as Acting Under Secretary of Energy and a senior advisor to the Secretary of Energy. In this role, he was responsible for integrating technologies and policies across all of the Department of Energy along techno-economic sectors to maximize leveraging of federal funding and to accelerate technology transition from research to markets.

John F. Rabolt and D. Bruce Chase to receive MRS Innovation in Materials Characterization Award



John F. Rabolt



D. Bruce Chase

John F. Rabolt and D. Bruce Chase of the University of Delaware have been honored with the Materials Research Society Innovation in Materials Characterization Award for their "development of Fourier Transform Raman Spectroscopy and the demonstration of its utility for examining the chemical structure and properties of organic molecules and polymers in solids, thin films, and solutions." They will be presented with the award at the 2013 Materials Research Society Spring Meeting in San Francisco. The award is endowed by Toh-Ming Lu and Gwo-Ching Wang.

At the University of Delaware where Rabolt founded the Materials Science and Engineering Department, Chase and Rabolt collaborate on a number of projects related to the spectroscopic analysis of polymers, including recent work to develop methods for the rapid acquisition of spectra for such applications as inline analysis during manufacturing processes using focal plane arrays, giving rise to a new technique called planar array infrared spectroscopy (PA-IR). This approach is the basis for the University's spin-off company, PAIR Technologies LLC. The PA-IR instrument enables

ultrarapid (<100 μ s) detailed detection and chemical analyses of polymers, chemical toxins, and biological pathogens.

Their work, however, began in separate locations with different research groups, simultaneously developing Fourier Transform Raman Spectroscopy (FT-Raman). Prior to their work, the practical use of Raman spectroscopy for examining polymers was severely limited due to overwhelming contributions from sample contaminants in creating a fluorescent background. Around 1985, Chase at the DuPont Central Research Laboratories in Delaware