

use of non-precious metal cathodes for low- and intermediate-temperature thin-film SOFCs is indeed feasible. The results are of major relevance to microscale energy conversion devices for portable appli-

cations, and future devices will likely use similar SOFCs as power sources. Also, very recently, the researchers reported low-temperature electrochemical characterization of the ultrathin LSCF cathodes

and have obtained mechanistic insights into their performance in micro-fuel cells (*Journal of Power Sources*, DOI: 10.1016/j.jpowsour.2009.04.024).

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News of MRS Members/Materials Researchers

George M. Whitesides to Receive Inaugural Dreyfus Prize in the Chemical Sciences

George M. Whitesides, the Woodford L. and Ann A. Flowers University Professor of Chemistry at Harvard University, has been



George M. Whitesides

named to receive the inaugural Dreyfus Prize in the Chemical Sciences for revolutionizing the chemistry of soft materials.

The prize, to be given biennially by the Camille and Henry Dreyfus Foundation, recognizes exceptional

and original research in a selected area of chemistry that has advanced the field in major ways. Conferred this year in materials chemistry, the prize consists of a monetary award of \$250,000, a citation, and a medal. The award ceremony will be at Harvard University on September 30, and will include a lecture by Whitesides.

Whitesides has developed powerful methods for the creation of new materials that have significantly advanced the field of chemistry and its societal benefits. His research extends across multiple disciplines, centered on chemistry, but touching

biochemistry, drug design, and materials science. His work extends to the engineering of functional systems and the applications of these systems in areas ranging from biology to microelectronics. He has opened broad new technological avenues and has impacted human health in significant ways. Whitesides's research in materials chemistry has become an essential part of materials synthesis programs around the world.

Among Whitesides's many innovations are the synthesis and molecular organization of new classes of materials, pioneering self-assembled monolayers and microfluidic systems to enable the development of new drugs and extend soft materials into the world of three-dimensional microelectronics, and into consumer devices such as solar cells. Within this work he developed soft lithography, a set of methods for printing and molding organic-based substances to make complex patterns at the micron and nanometer level.

Whitesides combined these approaches for creating materials with the concept of polyvalency and developed a new paradigm for drug design. This has resulted in affordable medical diagnostics expected to have a major impact on health in the third world as well as new drugs that manage cholesterol, improve dialysis, and combat

multiple drug-resistant pathogens.

Whitesides has received many awards. Among those from the American Chemical Society are the Award in Pure Chemistry, the Arthur C. Cope Award, and the Society's highest award, the Priestley Medal. From other institutions his awards include the Materials Research Society's Von Hippel Award, the Welch Award from the Welch Foundation, the American Institute of Chemists Gold Medal, and the Franklin Foundation's Benjamin Franklin Medal in Chemistry. In 1998, he was awarded the National Medal of Science. International recognition includes the Kyoto Prize for Advanced Technology, the Paracelsus Prize of the Swiss Chemical Society, the UAA-Dhirumbhai Ambani Award of the National Academy of Science in India, and the Prince of Asturias Foundation's Award in Science and Technology.

In addition to his academic research, he has helped found 12 companies in biotechnology and materials science and holds more than 50 patents. He is a member of the board of directors of Theravance, Hughes Research Laboratories, Surface Logix, Nano-Terra, Arsenal Biomedical, Diagnostics for All, and Paper Diagnostics.