**GENERAL LECTURE**
"Mr. Yaghi, Where are You From? A Journey Into Science and Society"

**Thursday, March 31, 2011**
7:30 p.m., PS F-166

Coming to America to learn how to conduct scientific research and how to build an innovative science and technology enterprise has been an effective strategy for the United States to achieve its supremacy in creative research; however, this is increasingly becoming a thing of the past. The United States’ scientific culture must now adjust to a new reality: depleted pools of talent and the continuing threat of reduced funding for basic research. Not to mention, the increased competitiveness of emerging economies overseas. This lecture is a mosaic of various personal experiences which when taken together bring out a new model for the United States to improve its rankings in reading, math and science, and to further enhance the global reach of its creative scientific culture.

**TECHNICAL PRESENTATION**
"The ‘Gene’ Within Metal-Organic Frameworks"

**Friday, April 1, 2011**
3:30 p.m., PSF-166

Stitching molecules by strong bonds into extended chemical structures is a new field of research which has led to the synthesis of porous metal-organic framework (MOF) crystals and several other related classes of porous materials. This lecture will outline some of the most important development in the MOF field and the synthesis and chemistry of the most porous crystals ever made by human-kind. Industrial scale production of MOFs and their applications to clean energy will also be presented. The idea of introducing a string of information which may ‘code’ for carbon dioxide capture within MOFs will be revealed.

Omar M. Yaghi was born in 1965 in Amman, Jordan. He immigrated to the United States at the age of 16 to pursue his undergraduate education. He received his B.S. degree from the State University of New York at Albany and his Ph.D. from the University of Illinois-Urbana (1990) with Professor Walter G. Klemperer. He was an NSF Postdoctoral Fellow at Harvard University (1990-92) with Professor Richard H. Holm. He has been on the faculties of Arizona State University (1992-98) and University of Michigan (1999-2006). His current position is the Jean Stone Chair Professor in the Physical Sciences and Professor of Chemistry and Biochemistry at UCLA. His early accomplishments in the design and synthesis of new materials have been honored by the Solid State Chemistry Award of the American Chemical Society and Exxon Co. (1998) and the Sacconi Medal of the Italian Chemical Society (1999). His work on hydrogen storage was recognized by Popular Science Magazine which listed him among the 'Brilliant 10' scientists and engineers in USA (2006), and the US Department of Energy Hydrogen Program Award for outstanding contributions to hydrogen storage (2007). He was the sole recipient of the Materials Research Society Medal for pioneering work in the theory, design, synthesis and applications of metal-organic frameworks and the AAAS Newcomb Cleveland Prize for the best paper published in Science (2007). He is the recipient of the American Chemical Society Chemistry of Materials Award (2009) and the Royal Chemical Society Centenary Prize (2010) for his pioneering work in porous metal organic frameworks and their application in gas storage for clean energy. His work encompasses the synthesis, structure and properties of inorganic compounds and the design and construction of new crystalline materials. He is widely known for inventing several extensive classes of new materials termed metal-organic frameworks, zeolitic imidazolate frameworks, and covalent organic frameworks. These materials have the highest surface areas and the lowest densities known to date, making them useful in clean energy technologies such as hydrogen storage, methane storage, and carbon dioxide capture. The building block approach he developed has led to an explosive growth in the creation of new materials of a diversity and multiplicity previously unknown in chemistry. He termed this emerging field ‘Reticular Chemistry’ and defines it as ‘stitching molecular building blocks into extended structures by strong bonds’. He published over 130 papers which have received over 200 citations per paper. He is listed among the top ten most highly cited chemists worldwide.
EYRING LECTURES IN CHEMISTRY AND BIOCHEMISTRY

The Department of Chemistry and Biochemistry at Arizona State University is pleased to announce the Eyring Lectures in Chemistry and Biochemistry for Spring 2011. This interdisciplinary distinguished lecturer series is dedicated to stimulating discussions by renowned scientists who are at the cutting edge of their respective fields. Each lecture series consists of a lead-off presentation to help communicate the excitement and challenge of this central science to the University and community, followed by a more specialized colloquium to help bring the audience to the scientific frontiers of the topics under discussion. Speakers will be scholars in residence in the Department during their lecture series and will be available for informal discussions with faculty, students, and other interested individuals.

The Eyring Lectures in Chemistry and Biochemistry bears the name of LeRoy Eyring, Regents' Professor of Chemistry, whose extraordinary instructional and research accomplishments and professional leadership at Arizona State University helped to bring the Department of Chemistry and Biochemistry into international prominence.

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