

PITT AWARD

The Annual Award for Innovation in Coal Conversion, also known as the **Pitt Award**, was founded by the Department of Chemical and Petroleum Engineering of the University of Pittsburgh in 1983 through the support of the following companies: Air Products and Chemicals, Inc.; Consolidation Coal Company; Gulf Research and Development Company - Synthetic Fuels Division; and Westinghouse Electric Corporation.

Since 1992, the award has been fully funded by CONSOL Energy Inc. The purpose of this award is to honor an individual each year, which has made a recent and significant contribution to the new technologies, new procedures or new policies toward coal utilization.

PITT AWARD RECIPIENTS

1985	Ab Flowers, Gas Research Institute
1986	W. Robert Epperly, Exxon Corporation
1987	William B. Krantz, University of Colorado
1988	Seymour B. Alpert, Electrical Power Research Institute
1989	John P. Murtha, Congressman, U.S. Congress
1990	Flynt Kennedy, Consolidation Coal Company
1991	Robert E. Lumpkin, Amoco Corporation
1992	Sun W. Chun, PETC, U.S. Department of Energy
1993	James J. Markowsky, AEP Service Corporation
1994	Thomas F. Bechtel, METC, U.S. Department of Energy
1995	Adel F. Sarofim, Massachusetts Institute of Technology
1996	Donald M. Carlton, Radian International LLC
1997	David H. Pai, Foster Wheeler Development Corporation
1998	Masakatsu Nomura, Osaka University, Japan
1999	Frank Derbyshire, CAER, University of Kentucky
2001	Terry Wall, University of Newcastle, NSW, Australia
2002	Rita Bajura, NETL, U.S. Department of Energy
2003	Francis Lau, Institute of Gas Technology
2004	Baoqing Li, Chinese Academy of Sciences, China
2005	Kouichi Miura, Kyoto University, Japan
2006	Charles H. Goodman, Southern Company
2007	Ben Jager, Sasol Technology, South Africa
2008	Liang-Shi Fan, The Ohio State University
2009	Michael J. Mudd, The FutureGen Alliance
2010	Güven Önal, Istanbul Technical University, Turkey
2011	Michael G. Morris, American Electric Power, Columbus, OH
2012	Richard L. Lawson, Energy, Environmental and Security Group, Ltd.

The 2013 Recipient
Ke Liu, Ph.D.



Vice President of Shenhua Research

Dr. Liu started his career at Exxon-Mobil and then worked in United Technologies Corp (UTC) and General Electric (GE). He was the Gasification Platform Technology Leader and Principal Scientist of GE Global Research before returning to China in 2010 to assume the responsibility of Vice President and Chief Technology Officer of the National Institute of Clean & Low-carbon Energy (NICE). Recently, Dr. Ke Liu was appointed as the Vice President of Shenhua Research.

Dr. Liu's research activities include reaction engineering, fluidization and catalysis, clean coal conversion and oil refining; biomass/coal gasification and fuel reforming for H₂ and syngas production; fuel cell systems and H₂ energy; diesel engine systems and diesel engine emission reduction etc.

Dr. Liu is the author of the book "**Syngas and H₂ Production and Purification Technologies**," published by John Wiley & Sons, Inc. He also published over 25 papers and filed 65 patents and patent applications. He is the Editor-in-Chief of the "International Journal of Clean Coal Energy" and Associate Editor of "Energy and Fuels". He was a Board Member of the former "Power, Environmental & Energy Research Center" of California Institute of Technology; and currently he is the member of the Advisory Board of the International Pittsburgh Coal Conference. He is also the Chair of the Chemistry and Chemical Engineering Division of the National 1000 Talents Plan Association.

Dr. Liu received a variety of national and international awards, including "The Minorities in Research Award" (2006 Emerald Honors Special Recognition Award), and Shell-United Technology Corporation Presidential Award, best patent award, etc.

Dr. Ke Liu received his BS in Chemical Engineering and MS in Biochemical Engineering from Northwestern University, China; ME and PhD in Chemical Engineering from City University of New York; and MS in Management from Rensselaer Polytechnic Institute.

2013 Annual

PITT AWARD PROGRAM



University of Pittsburgh
Swanson School of Engineering

Presented at the Awards Luncheon

Wednesday, September 18, 2013

Beijing International Convention Center
Beijing, CHINA

Thirtieth Annual International
Pittsburgh Coal Conference
September 16 - 18, 2013
Beijing, CHINA

Sponsoring Organization
CONSOL Energy Inc.