



Harry G. Fair

Each year, a special lecture is given in memory of Harry G. Fair, an outstanding OU alumnus. Harry G. Fair was born in Okmulgee, Oklahoma, on June 3, 1916. He received his B.S. in Chemical Engineering in 1939. He joined Phillips Petroleum Company in 1939 and worked his way up to Vice President for Supply and Transportation, with responsibility for world-wide exchange of crude oil and all transportation facilities. In 1966, he joined the M.W. Kellogg Company as Executive Vice President, in charge of all engineering activities and became Executive Vice President of Coastal States Gas Corporation from 1971 until the time of his death on July 27, 1974. Harry G. Fair was active in service to society and to his alma mater. He was a member of a number of professional societies and was a licensed professional engineer.

This lecture is made possible by the Harry G. Fair Memorial Fund contributed by his widow, Jane Swift Fair. Arrangements are made by the School of Chemical Engineering and Materials Science.

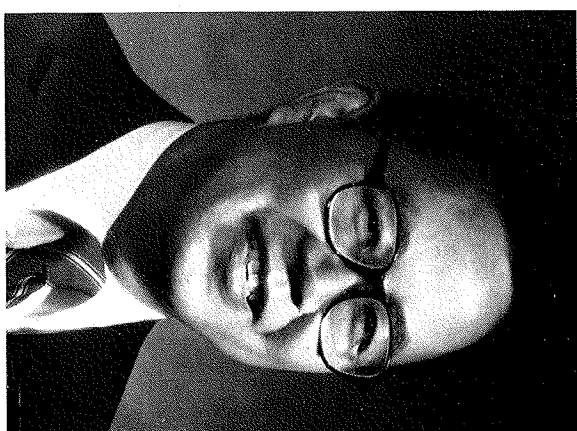
"Reaction and Diffusion In Zeolites"

by
James Wei

Zeolites are regular crystals of silica and alumina possessing sets of porous channels that give snug fits to important molecules such as benzene and xylene. These channels are molecular sieves, giving strong preference of passage to fat molecules such as para-xylene to fat molecules such as meta-xylene. This property can be exploited to change product selectivity to enrich para-xylene from the thermodynamic equilibrium value of 25% to nearly 99%. This is the region of "configurational diffusion" where the laws are not well understood. There are many paradoxical diffusional properties that wait for explanation and exploitation.

Dr. James Wei was named Warren K. Lewis Professor and Head of the Department of Chemical Engineering at the Massachusetts Institute of Technology in 1977. Prior to assuming this post, he served as Allan P. Colburn Professor of Chemical Engineering at the University of Delaware for six years.

A graduate of Georgia Institute of Technology and MIT, Dr. Wei spent the first 15 years of his career conducting research studies in catalysis and reaction engineering, and performing long-range forecasts on the supply of, and demand for energy, for Mobil Oil Research, and later Mobil Oil Corporation. During his tenure with Mobil, he also served as visiting professor of chemical engineering at Princeton University and the California Institute of Technology. He left the corporation in 1971 to take a professorship at the University of Delaware, where he continued his work in such areas as transport in biological systems and emissions control.



James Wei

Dr. Wei has written 70 technical publications, and contributed as a writer or editor to four textbooks. He has done consulting work for Battelle Memorial Institute, the 3M Company, and the Milliken Company, and has served on numerous government advisory boards, including the National Research Council's Committee on Motor Vehicle Emissions and the Council's recent committee surveying the future of the chemical engineering profession. He was also part of the first delegation from the National Academy of Sciences' Pure and Applied Chemistry Group to visit the People's Republic of China.

Named one of 30 "eminent chemical engineers" by AIChE in 1983, Dr. Wei has also been honored with the Institute's Warren K. Lewis, William H. Walker, and Professional Progress awards, and was selected as "Institute Lecturer" in 1968. He is a member of the National Academy of Engineering, the American Academy of Arts and Sciences, and the Academia Sinica in Taiwan, Republic of China.

You Are Cordially Invited

To Attend

THE FIFTEENTH ANNUAL

HARRY G. FAIR

MEMORIAL LECTURE

in

Chemical Engineering
And Materials Science

March 13, 1989

3:30 P.M.

The Lecture will be given on campus,
in
Room 100, Carson Engineering Center

Coffee and Refreshments
will be served

School of Chemical Engineering and Materials Science
The University of Oklahoma
The Energy Center, 100 E. Boyd, Room F-339
Norman, Oklahoma 73019

THE UNIVERSITY OF OKLAHOMA
COLLEGE OF ENGINEERING



Time for Greatness

THE
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HARRY G. FAIR
MEMORIAL LECTURE

in

CHEMICAL
ENGINEERING

1989