## The E. Ann Nalley Award Volunteer Service to the Southwest Region Dr. Diana S. Mason



Dr. Mason is an Associate Professor (retired) in the Department of Chemistry at the University of North Texas. She has been an active participant in the meetings of the Southwest Region and served as the General Chair for the ACS 21<sup>st</sup> Biennial conference for Chemical Education in 2010. Dr. Mason has also served as Director of the Fort Worth Regional Science and Engineering Fair and currently serves on the Board of Trustees for the Fair. She served as Chair of the San Antonio section in 2000.

Dr. Mason is the founder of the University of North Texas Mean Green Demo Team, an organization

that presents chemistry shows and demonstrations at schools across Texas and before professional and scientific organizations across the United States. She was elected to the 2012 class of ACS Fellows.

### The E. Ann Nalley Award

#### Volunteer Service to the Southeastern Region

#### Dr. Judith Iriarte-Gross



Dr. Judith Iriarte-Gross is Professor of Chemistry at Middle Tennessee State University and has served as the Director of the Women in STEM Center since 2009. Dr. Iriarte-Gross has been particularly active in promoting activities that encourage middle and high school girls to pursue careers in a STEM related field. She started the first Expanding Your Horizons in Tennessee, serving over 6800 girls. She received the first International Athena Leadership Award given by Rutherford Cable in 2014 and was named an Association for Women in Science Fellow (AWIS) in 2009. She currently is co-President of the Tennessee Chapter of AWIS. Dr. Iriarte-Gross has served on the Program Committee of the ACS Division of Chemical Education since 2006 and served as Chair and Councilor for the Nashville section . She was appointed to the ACS Leadership Advisory Board in 2014.

## ACS Division of Chemical Education Southwest Region Award for Excellence in High School Teaching

Dr. Mary Elizabeth Maris



Dr. Mary Elizabeth Maris is a chemistry teacher at Little Rock Central High School. She is an Education liaison for the Central Arkansas Section of the ACS and a member of the Little Rock Textbook Adoption Committee. She was recognized as Teacher of the Year by the Central Arkansas Section of the ACS in 2007, 2010, and 2013 and received the Stephens Award for Outstanding High School Educators in 2011. She was a Recognized Educator by the Arkansas Governor's School in 2010 and 2011 and was awarded Teacher of the Year by the Junior Science and Humanities Symposium in2014.

# ACS Division of Chemical Education Southeast Region Award for Excellence in High School Teaching Constance Brown



Constance Brown teaches Physics, Honors Chemistry, and Physical Science at Northwest High School in Clarksville, Tennessee. She was named Outstanding Science Teacher for Middle Tennessee by the Tennessee Academy of Science in 2001 and the Tennessee Academy of Science distinguished Science Teacher in Tennessee in 2003. In 2005, she was named ACS Outstanding Science Teacher for the Nashville section. She was also on the 2006 National Honor Roll of Outstanding American Teachers.

Constance Brown actively pursues astronomy research, involving solar spectroscopy and the magnetic strength of sunspots. She has collected data for the Hubble Telescope Project and took the first images of an exploding supernova in the Whirlpool Galaxy. She is an active supporter of

student research and has co-authored 17 student research grants.

### Southwest Award Given by the Southwest Region of the ACS Dr. Charles L. Wilkins



Dr. Charles Wilkins is Distinguished Professor of Chemistry and Biochemistry at the University of Arkansas at Fayetteville. Dr. Wilkins а key contributor in the was development of computer-assisted data acquisition systems and the development of Fourier transform mass spectrometry as an important tool for chemical analysis; and these are just a few of his many accomplishments. He was Chairman of the Analytical Division of the American Chemical Society from 1991-1992.

Dr. Wilkins has been the recipient of a number of awards. These include the Lester W. Strock Award from the Society of Applied Spectroscopy in 1982, the Pittsburgh Analytical Award in 1994, the Tolman Medal from the Southern California ACS in 1993, the New York Section of the Society for

Applied Spectroscopy Gold Medal Award in 1996, and the American Chemical Society Franklin and Field Award for Outstanding Achievement in Mass Spectrometry in 1997. He was elected a Fellow of the American Association for the Advancement of Science in 1996, a Fellow for the Society for Applied Spectroscopy in 2006, and a Fellow of the American Chemical Society in 2010. He received the American Chemical Society Division of Analytical Chemistry Award in Chemical Instrumentation in 2013.

#### Industrial Innovation Award

#### Given By the Southeastern Region of the American Chemical Society



This year's awardees are members of the Center for Energy, Environment, & Sustainability which is affiliated with Wake Forest University. Dr. Marcus Wright is accepting the award on behalf of the winning group which consists of Dr. Abdou Lackgar, Dr. Chinmay Deshmane (now at Pacific Northwest National Laboratory), Dr. Wright, and Dr. Brian Hanson. This team was nominated by the Dr. Christa Colyers, Chair of the Dept of Chemistry at WFU, for their project entitled "Production of biodiesel from low quality feedstock (waste fats) by the esterification of fatty acids using a stable solid acid catalyst". Biodiesel is a fuel created from biomass which can be used instead of fossil fuel or as an additive to improve the properties and sustainability of fossil fuels. Despite the low cost of fossil fuels at present, this area remains a hot topic as exemplified by the cover story of CEN Oct 26, 2015, "Growing Biofuels' Potential". The group produced improved catalysts that were stable over time by a process in which the catalysts are exposed to an extensive leeching procedure prior to their use in production of biodiesel. This process rendered the stable solid acid catalysts recyclable as they can be used without worry of further inactivation due to leeching. Recently, a third generation catalyst with higher sulfur content was developed using cysteine as a precursor. Collaborations that flowed from their technology include: 1) transfer of technology to the Center of Excellence in Analytical Chemistry at the University of Sindh in Pakistan, for use in developing fuels from Pakistani biomass; 2) Marshallton, Inc. will prepare kilo-scale amounts of the catalysts; and 3) Blue Ridge Biofuels will test its performance in continuous flow equipment. The outstanding achievements of Dr. Lachgar's team and the WFU Center for Energy, Environment and Sustainability, has inspired continued entrepreneurial excellence in the Southeast region by highlighting their important work as an example of the commercially viable sustainable energy production.