



**AMERICAN CHEMICAL  
SOCIETY**

**PERMIAN BASIN SECTION**

**Newsletter**

*Volume 4, Number 4a*

*September, 2011*



I'm sending this short note with some information about upcoming Permian Basin ACS meetings. The next full newsletter will be sent in mid-October.

### Upcoming Local Meetings

#### **ACS Permian Basin Section Meeting: Thursday, September 29, 2011**

**Speaker:** James Traynham (Louisiana State University, retired)

**Title:** "Chemical History Firsthand: Excerpts from the Oral History Program at the Chemical Heritage Foundation"

**When:** **September 29, 2011**; 7:00 p.m.

**Where:** Cavness Science Building (corner of Dena and Johnson), ASU (San Angelo)

#### **Biographical Sketch:**

**James G. Traynham** is a professor of chemistry, emeritus, at Louisiana State University (LSU), where he became a faculty member in 1953. During 1968-73, he was chairman of the Department of Chemistry, and for eight years, beginning in 1973, he was part-time chemist, at best, while he served LSU as vice chancellor for Advanced Studies and Research and dean of the Graduate School. A large part of his professional time was directly associated with teaching organic chemistry to large classes of students. He spent two sabbatical leaves in Europe, one supported by an American Chemical Society Petroleum Research Fund award (1959-60), and one as a NATO Senior Fellow in Science (1972). His research interest in mechanisms of organic reactions focused on carbocation processes, radical halogenations, and ipso intermediates in radical aromatic substitution reactions. During the past decade, he turned his attention to research on the history of organic chemistry. Besides his journal publications about his research, Professor Traynham has written review articles, chapters for six advanced



level books, articles on teaching chemistry, and a text-supplement workbook on organic chemical nomenclature, now in the fourth edition; he was general editor as well as a contributing author for a volume of essays on the history of organic chemistry.

**Title: “Chemical History Firsthand: Excerpts from the Oral History Program at the Chemical Heritage Foundation”**

For over two decades, the Chemical Heritage Foundation (CHF) has been recording and archiving oral history interviews with distinguished chemists and chemical engineers in industry and universities. Over 200 interviews have been completed, and they constitute a remarkable resource of chemical history told by the participants themselves. The speaker has been conducting CHF interviews since 1996. The interviewees include researchers, inventors, and CEOs; most have been recipients of prestigious awards and medals. These recorded interviews include much information not found in the usual biographical sketches accompanying award citations: early childhood and schooling, early influence toward and education in chemical science, career development and experiences, and non-scientific interests. They provide interesting stories and insights about backgrounds, choices, and emphases of highly successful chemical scientists. This talk will present excerpts of several interviews conducted by the speaker that illuminate the kinds of stories and insights to be found in the collection. Emphasis will be placed on the unexpected facets of the careers and of the scientists, on both the connecting threads and the diversity among them. At its national Expositions, ACS markets T-shirts with the imprint “Chemists — the human element.” The contents of the CHF oral history collection and of this talk illustrate the basis for such an imprint.

## **ACS Permian Basin Section Meeting: Thursday, October 6, 2011**

**Speaker:** James & Jenny Marshall (University of North Texas)

**Title:** “Rediscovery of the Elements”

**When:** **October 6, 2011, 2011;** 7:00 p.m.

**Where:** Cavness Science Building (corner of Dena and Johnson), ASU (San Angelo)

### **Biographical Sketch:**

**James L. Marshall** gained his B.S. in chemistry at Indiana University in 1962, and his Ph.D. in organic chemistry at Ohio State University in 1966. The following year Dr. Marshall joined the Department of Chemistry at the University of North Texas. At UNT he was involved in conformational analysis utilizing carbon-13 nuclear magnetic resonance coupling constants. During the early 1980s Dr. Marshall spent six years at Motorola, Inc., Ft. Worth, where he developed the laboratory facilities for the Advanced Manufacturing Technology Program. In 1987 he returned to the University of North Texas where he conducted materials research, and in the 1990s he initiated research in chemical history. His research at UNT has resulted in over 200 publications, including a reference book on NMR, and several books on the history of chemistry and laboratory chemistry. At UNT Dr. Marshall has served as Director of Industry-University Cooperative Research Center, Director of the Center for Materials Characterization, and Chairman of the Department of Chemistry. Dr. Marshall has served as Chairman of the Dallas-Ft. Worth Section of the American Chemical Society, and during the period 1995-2003 was Managing Editor of *The Southwest Retort*, an ACS publication of the Southwest Regional. He has served as an ACS national tour speaker for many years. For the past ten years he and his wife (a retired member of the computer technology group of the Denton Texas Independent School District) have been developing an extensive work, “Rediscovery of the Elements,” and in 2010 have completed their work and have prepared a DVD describing their travels and the results of their research. Their research was recently reviewed in *NATURE* (2005, 436(25), 1082-1083) and their work has recently won “Best Paper Award” in the *Bulletin for the History of Chemistry* (in 2004).



### **Title: Rediscovery of the Elements**

For the past decade Jim and Jenny Marshall have been involved in “Rediscovery of the Elements,” where they have traveled to the sites where the elements were originally found. These travels take them to old laboratories, mines, universities, museums, ancient buildings and houses — mostly in Europe, where science was born several centuries ago and where the fundamentals of modern chemistry were developed. In their project Jim and Jenny have traveled and researched elements in over twenty countries in Europe, as well as Mexico, Canada, and the U.S. In their presentation Jim and Jenny will present a brief tour of the types of adventures encountered during this research, spanning countries reaching from Scotland through France to Romania.

## **ACS Permian Basin Section Meeting: Thursday, November 3, 2011**

**Speaker:** Dwight Chasar

**Title:** “Chemistry is for the Birds”

**When:** November 3, 2011; 7:00 p.m.

**Where:** Cavness Science Building (corner of Dena and Johnson), ASU (San Angelo)

### **Biographical Sketch:**

**Dwight Chasar** obtained his PhD in organic chemistry from Case Western Reserve University in 1968. After a post-doctoral stint and military service, he taught organic chemistry at the University of Pittsburgh at Johnstown for three years. Then he joined the BFGoodrich Co in 1974 as an R&D chemist, succeeding to the highest technical level of R&D Fellow. His research centered on polymer stabilization, nitrosamine formation in rubber, and vulcanization accelerators for rubber. He continued in this capacity through successive owners of the business, eventually retiring from Emerald Performance Materials in 2007. He holds 24 patents and presented and published a number of papers at technical meetings and in technical journals, respectively.



He became interested in bird watching about 25 years ago and has not looked back. He leads bird walks for a number of groups, including the Cuyahoga Valley National Park, and organizes or participates in a number of bird censuses and breeding bird studies. He has served on the Ohio Birds Record Committee for four years. He has published papers and given talks on his bird fieldwork, historical aspects of birds, and travels to observe birds in other countries.

A member of the American Chemical Society since 1965, he has been active both locally in the Cleveland Section and nationally as a councilor from Cleveland.

### **Title: “Chemistry is for the Birds”**

Chemists like to think that chemistry is the central science. Recently, avian biologists and some chemists have examined more closely the chemistry associated with birds, using the tools we chemists have used for years to better understand facets of bird life and behavior. This presentation will discuss some recent as well as older research into this chemistry. The chemical pigments that give birds color, the chemicals that birds use for survival in the wild, chemicals that nearly extirpated raptors, and the use of stable isotopes to understand bird migration will be discussed. From the simplicity of bird poop to the complexity of bird DNA analysis, chemistry is playing a big role in understanding bird dynamics. Along the way bird photos should brighten up the chemistry discussions. This PowerPoint presentation should cover enough chemistry to satisfy general interest chemists while being simple enough for non-chemists and students to understand and appreciate the beauty and complexity of chemistry and birds.