Foreword

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Richard D. Adams

It was the spring of 1998 when one of us (BC) was considering whether or not to do graduate work with Professor Richard Adams at the University of South Carolina. On meeting with Professor Adams for the first time in his office, his passion for science was clear, but one could not help but notice the various minerals on display on his desk and shelves. Trying to avoid chemistry questions the subject

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was changed to the beautiful crystal forms of the minerals in the room. From minerals the interview continued on to crystallography and symmetry and then transition metal clusters. That brief encounter was the beginning of a working relationship that extended from 1998 to 2007, during an era which Professor Adams would often refer to as “the good ole days”. To him “the good ole days” meant pleasant hours spent pursuing new science. To his students, it was characterized by hard work, frustrating failures, and on occasion the discovery of new structures, reactions, and bonding modes rivaling the intricacy of a coral reef. Without fanfare or exaggeration, in an ongoing career of over 40 years, countless new forms have been created, brought to light, examined in detail, and recorded in the over 500 articles, books, and reviews by Professor Adams.

In his very early years, Professor Adams had a great interest in nature and was particularly fascinated by crystals and minerals. He received his bachelor’s degree in chemistry from the Pennsylvania State University in 1969, and went on to MIT to study under the direction of F. A. Cotton where he received a Ph.D. in inorganic chemistry in 1973. While working with Cotton, he learned to do X-ray crystallography to help to satisfy his interest in crystals and more importantly to establish the molecular structure of the new compounds that he was synthesizing in the Cotton labs. At MIT, he also became interested in the use of dynamical NMR spectroscopy for the study of molecular rearrangements. He moved to Texas A & M University in 1972 to complete his Ph.D. research when Cotton departed MIT for a new position there. He met his wife Nancy in Boston, and they were married at the end of 1972. They have two children Todd and Amanda. His first faculty position was at the State University of New York at Buffalo in 1973, but he moved to Yale in 1975 when an opportunity became available there. In 1984, he moved to the University of South Carolina in Columbia where he still is located today. In 1995 he was appointed the first Arthur S. Williams Professor of Chemistry at the University of South Carolina. From 2001 to 2005, he served as the Director of the USC Nanocenter. In 2006, he was promoted to Carolina Distinguished Professor. Over 36 students have received Ph.D. degrees for the research done under his direction.

His research interests have been focused largely on the chemistry of polynuclear metal carbonyl complexes with a goal of trying to develop an understanding of the way two or more metal atoms can interact cooperatively with small molecules to produce transformations especially for applications in catalysis. He has been particularly interested in the activation of hydrogen by electronically unsaturated cluster complexes. In recent years, his research has been focused on the synthesis and characterization of mixed metal cluster complexes for use as precursors to supported bi- and multi-metallic heterogeneous nanoscale catalysts. He has served as a co-editor for the *Journal of Cluster Science* since 1991 and as the American regional editor of the *Journal of Organometallic Chemistry* since 1998. He received many awards for outstanding research including the 1999 award for Inorganic Chemistry from the American Chemical Society, the Henry Albert award of the International Precious Metals Institute (2005), the 2010 ACS award for Distinguished Service in the Advancement of Inorganic Chemistry and the 2011 Distinguished Scientist award of the Southeastern Universities Research Association. In 2011, he was elected to the European Academy of Sciences and Arts.

With this issue we wish Professor Richard Adams a “Happy Birthday”, and in an unconventional way, rather than giving him a present, we express our thanks to him for his contributions to cluster science, and look forward to receiving many such “gifts” from him in the future.