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Inorganic Chemistry
Editorial

An Appreciation of Henry Taube

In 2003, *Chemical and Engineering News* conducted a survey to find the 10 most beautiful experiments in chemistry. The list included Pasteur's separation of tartrate enantiomers, Davy's electrolytic preparation of the reactive alkali and alkali earth metals, Priestley's discovery of oxygen by heating "red calx" (mercuric oxide), and Bartlett's preparation of the first noble gas compound, xenon hexafluoroplatinate, among others. Interested readers are referred to http://pubs.acs.org/isubscribe/journals/cen/81/i34/html/8134sci1.html?emFrom=emLogin for the article and complete list, as well as 10 honorable mentions. When the call for nominations was conducted, I did not respond, in part because of the myriad of activities that all of us are involved with, but I vividly remember the experiment that I put at the top of my list. It was more recent than all of the top 20 except for Bartlett's seminal work and was beautiful to me because of its ingenious yet simple design. The experiment was Henry Taube's proof of inner-sphere electron transfer using cobalt(III) pentammine chloride and aqueous chromous(II) ion. The inertness of both the $[CoCl(NH_3)_5]^{2+}$ reactant and the $[CrCl(H_2O)_5]^{2+}$ product made the significance of this reaction crystal clear to follow, namely, that in the course of the reduction of the inert cobalt(III) ion by labile chromous(II), the chloride was transferred directly from one metal center to the other by the now well-recognized μ-Cl-bridged complex. The reaction represented a truly extraordinary combination of scientific significance and elegance of design that led to the 1983 Nobel Prize being awarded to Taube.

In this issue, *Inorganic Chemistry* presents a Viewpoint article by Carol Creutz, Peter C. Ford, and Thomas J. Meyer that is really an appreciation of the science of Henry Taube, who passed away in November 2005. Henry was a giant in our field whose work has impacted inorganic chemistry in profound ways through the new chemistry he created, the insights he provided, and the students he mentored. In every inorganic chemistry course, systems, concepts, and understanding emanating fully or substantively from Henry's work are taught such as inner-sphere electron transfer, hydration numbers, metal complex lability and inertness, intervalence charge transfer, dinitrogen coordination, and reactions of coordinated ligands. The authors of the Viewpoint article were all mentored by Henry, and each is now a recognized leader in our field. Their account is written with insight and affection. I hope their article becomes an assigned reading in inorganic chemistry courses everywhere—it will be in mine.

Richard Eisenberg

Editor-in-Chief

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