Preface for CCR volume on reaction mechanisms

In 1997, Barry Lever suggested to me that it was time for a special volume of *Coordination Chemistry Reviews* on Reaction Mechanisms and asked if I would coordinate this effort. Since I had also been thinking of preparing a volume in honor of my colleague Professor Emeritus Ralph G. Pearson on the occasion of his 80th birthday (January 12, 1999), the two projects were a natural fit. The field of Inorganic Reaction Mechanisms owes a great deal to Ralph, both as a participant in seminal research and as an organizer and interpreter of information. For example, several generations of Inorganic chemists, myself included, learned their kinetics from various editions of Pearson's book "Kinetics and Mechanism" (with Arther Frost and later John Moore) and were educated in the nuances of metal complex reaction mechanisms from Fred Basolo and Ralph Pearson's two editions of "Mechanisms of Inorganic Reactions". When I suggested to various individuals that such a honorary volume was under consideration, the response was very enthusiastic. The result is the present volume consisting of an interview with Ralph plus 13 articles covering a broad range of reaction mechanism chemistry. These articles sample topics of importance to the biochemistry of marine organisms, atmospheric chemistry, main group and transition metal redox reactions, photochemistry, metal ion substitutions, organometallic complexes, electrode processes, etc. The breadth of such topics illustrates the value of quantitative mechanistic thought to a full understanding of reaction chemistry in any area. In this context, all of us who utilize such tools owe a great deal to the legacy left by Ralph Pearson and other members of his generation of mechanistic inorganic chemists.

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