

CONTROVERSY AND RESOLUTION IN ORGANIC CHEMISTRY: CLAIMS OF PLAGIARISM, FABRICATION AND FALSIFICATION

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As a human endeavour, scientists carrying out chemical research have experienced and will continue to experience instances of controversy and conflict. These events can be extremely painful to the participants and both disruptive as well as invigorating to the progress of science. Several controversies from the past 70 years will be discussed, including the nonclassical ion controversy involving H. C. Brown, Saul Winstein, John D. Roberts, Paul von R. Schleyer, George Olah and many others; the 1944 Woodward-Doering total synthesis of quinine characterized in the early 2000s as a “myth” by Gilbert Stork; and the origin of the solution to the no-mechanism problem, that being the Woodward-Hoffmann rules and the assertion by E. J. Corey that Woodward plagiarized his ideas in 1964. A focus of this lecture will be on nature of conflict resolution and the lessons learned.

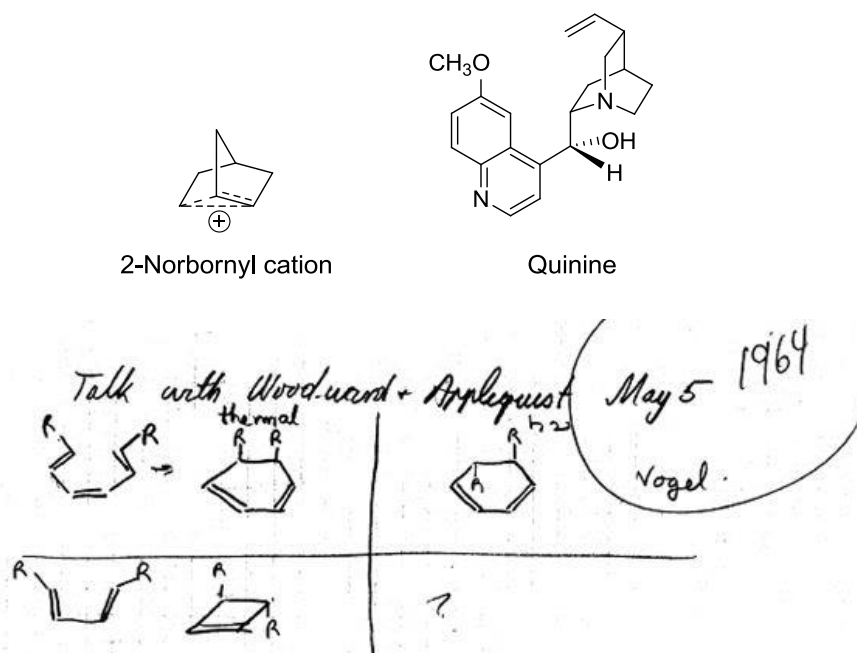


Figure 1. (Top) Structures of the nonclassical 2-norbornyl cation and quinine. (Bottom) An excerpt from Roald Hoffmann's laboratory notebook dated May 5, 1964, illustrating the beginning of his collaboration with R. B. Woodward on the development of the principle of Conservation of Orbital Symmetry.