**The Hajos–Parrish–Eder–Sauer–Wiechert Reaction**

**Significance:** In the early 1970s, Hajos and Parrish at Hoffmann-La Roche, and Eder, Sauer, and Wiechert at Schering independently developed a proline-catalyzed intramolecular aldol cyclization of substituted cyclic 1,3-diones toward the corresponding aldol products. The desired carbocycles are obtained in good to excellent yields with moderate to excellent enantioselectivities. Acid-catalyzed dehydration delivers tetrahydroindanediones and octahydronaphthalenediones, which can also be obtained in a single step by using a combination of proline and a Brønsted acid co-catalyst. The developed reaction provides important intermediates for the synthesis of pharmaceutically relevant steroids and other natural products in an economic and efficient manner even though the reaction has never been used on an industrial scale.

**Comment:** Although the potential and generality of chiral amine catalysis was not realized until the early 2000s (B. List, R. A. Lerner, C. F. Barbas *J. Am. Chem. Soc.* **2000**, **122**, 2395), the Hajos–Parrish–Eder–Sauer–Wiechert reaction is considered a milestone in the field of organocatalysis. Although Hajos and Parrish rejected the correct aldolase-type enamine mechanism (L. Hoang, S. Bahmanyar, K. N. Houk, B. List *J. Am. Chem. Soc.* **2000**, **122**, 2395), the developed reaction provides an excellent example of the potential of organocatalysis and the importance of the ‘enamine catalysis’ concept, which has since become a cornerstone of organocatalysis.