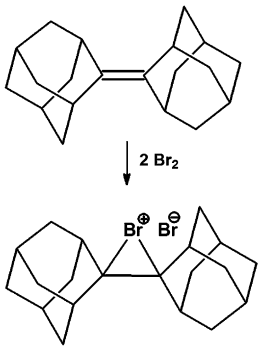
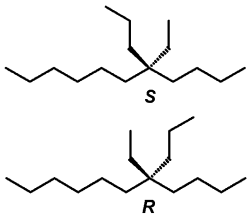
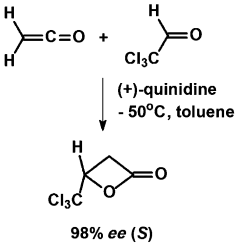
Hans Wynberg







Hans Wynberg (1922–2011)

At the age of 88, Professor Hans Wynberg passed away in his home in Midlaren, the Netherlands, on May 22, 2011. With him, the chemical community has lost a remarkable and original organic chemist and his more than 60 graduate students lost a highly appreciated mentor.

Hans Wynberg was born in 1922 in Amsterdam. His parents sent him at the age of 17, together with his twin brother Luke, to the USA to escape from the upcoming war. After his high school period in New York, he became a young assistant with Pfizer and saw the first production of penicillin. That event caught his interest in chemistry; however, before entering college, he became soldier in the US Army. As member of the OSS team, he was dropped behind enemy lines in Austria to support the allies in World War II; he later found out that his younger brother and parents did not survive the war and died in concentration camps. With a fellowship of the US government, which was given to all war veterans, Hans Wynberg studied at Cornell with a major in chemistry and received his PhD in 1952 at the University of Wisconsin in Madison under the leadership of Professor William S. Johnson. In his thesis, he explored the synthesis of steroids with the aid of the Reimer–Tiemann reaction. After appointments in New Orleans and in Grinnel, Iowa, as an assistant professor, he traveled in 1959 with his wife Elly and four children to Leiden, the Netherlands, to work as a Fulbright fellow with Professor Egbert Havinga. When a professorship position in Organic Chemistry in Groningen was opened he was appointed, and started there in 1960 as new head of the Laboratory of Organic Chemistry at the University of Groningen.

With a strong desire to always enter new chemical territory and by putting the bar at the highest level, both for himself as for his environment, Hans Wynberg brought chemistry in Groningen at the high international standard that he was hoping for. Organic synthesis and stereochemistry were the two areas of chemistry he loved most, although a number of studies from his group have been very important for the understanding of the properties of molecules. Some of his discoveries are related to the isolation of the first stable bromonium ion of (adamantylidene)adamantane, which has often been proposed but never observed as intermediate of the bromination of alkenes, and the very stable 1,2-dioxetane of the same (adamantylidene)adamantane. His publication of the first syntheses of oligomeric thiophenes are always seen as highly important for organic materials. With creative synthesis, his group was also able to synthesize 5-ethyl-5-propylundecane in its enantiomerically enriched form. This chiral alkane did not show any optical rotation in the UV/Vis region; a sparkling observation that was included in organic text books. After that experiment and following the strong tradition of the Netherlands in stereochemistry, Hans Wynberg dedicated most of his academic life to the synthesis of important chiral molecules by either chiral catalysis or by the resolution of its enantiomers. With his seminal work on using chiral organic bases, such as quinine and quinuclidine, to perform Michael additions with high enantiomeric excesses, he was one of the pioneers in the now so important field of organocatalysis. With the discovery of the catalytic asymmetric addition of ketene to chloral to produce β-lactone in 1982, he accomplished a remarkable chiral transformation that was implemented in industry to produce an important chiral building block on a kilogram scale. Another breakthrough from his group came with the invention to use a mixture of chiral acids to perform the resolution of enantiomeric bases on a routine basis. This technique was further optimized and is now known as the Dutch resolution, which is very successfully used in many laboratories around the world to get fast excess to enantiomerically pure compounds.

The results of the Dutch resolution were obtained after his formal retirement in 1987 while in his new industrial position. Although he protested heavily against discrimination based on age, he made himself very useful for society by founding Syncom BV, a highly successful contract research company in Groningen. Not only could he continue to work on challenging organic problems, he could also help industry and many young organic chemists from all over the world to provide highly interesting jobs. For his students, Hans Wynberg was a unique and inspiring mentor. With great enthusiasm, he confronted us with the international chemical community and stimulated us to explore the unknowns even when he was not an expert in it. He was always willing to learn, and with that attitude he brought many of his students to the careers they got, either in academia or industry. We will miss him as a mentor, a friend, and a chemist who was in love with molecules.

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