

*Directed Evolution of
Enantioselective Enzymes:
An Unceasing Source of Catalysts*

Prof. Manfred T. Reetz

Max Planck Institut für Kohlenforschung, Germany

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Prof. Reetz was born in Hirschberg (Germany) on August 13th, 1943. He got his Bachelor degree in 1965 from Washington University (St. Louis, USA) and his Master degree in 1967 from University of Michigan (Ann Arbor, USA). He obtained his Doctoral degree at the University of Göttingen in 1969 under the supervision of U. Schöllkopf, and in 1971/72 did his Post-doc with R. W. Hoffmann at University of Marburg.

Since 1991 he has been Director at the Max-Planck-Institut für Kohlenforschung, and from 1993 to 2002 he was Managing Director of this center. He has been Honorary Professor at Ruhr-Universität Bochum since 1992 and Chairman of the Studiengesellschaft Kohle mbH, SGK (patent department of the Institute) since 1993.

Prof. Reetz is a synthetic organic chemist who has specialized for many decades in the area of organometallic chemistry and homogeneous transition metal catalysis. He has demonstrated, for example, that BINOL-derived monodentate phosphites are excellent chiral ligands in asymmetric Rh-catalyzed hydrogenation, and he has invented the technique of using mixtures of chiral and achiral monodentate ligands combinatorially. The main emphasis of his research during the last decade has been in the area of biocatalysis, specifically by pioneering the concept of directed evolution of enantioselective enzymes as catalysts in organic chemistry.