PRESS RELEASE
WINNERS ANNOUNCED
1995/1415H KING FAISAL INTERNATIONAL PRIZE
F O R
S C I E N C E

Topic: Chemistry

The Selection Committee of The King Faisal International Prize for Science (Chemistry) has awarded the 1995 Prize to:

Professor K. Barry Sharpless

Professor Sharpless, of the Scripps Research Institute in California, has developed two new methods for the production of the so-called enantiomerically pure compounds.

An important problem in chemistry, and particularly in the pharmaceutical industry, is the production of enantiomerically pure compounds, which are molecules having all one single chirality (handedness), be they right-handed or left-handed. Some molecules, which can have beneficial effects on the living organism when they are of a particular handedness, can be harmful or even lethal if they are of the opposite one. This fact has led in the past to tragedies as a result of some new drugs. For this reason, pharmaceutical companies actively seek new procedures for fast and inexpensive production of enantiomerically pure compounds. Professor Sharpless has developed two most important alternative methods based on the transformation of bonds in particular parent molecules, with the help of a metal catalyst, to produce daughter molecules having the required handedness. His contribution led to the development of "catalytic asymmetric synthesis".

Professor Sharpless has been described as "one of the most creative and intuitive organic chemists of his generation".