

Speech of

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Winner of the 1995 King Faisal International Prize
for Science
(Chemistry)

Your Royal Highness Prince Sultan ibn Abd Al-Aziz,
Your Royal Highnesses,
Your Excellencies,
Distinguished Guests,

It is with the deepest gratitude that I appear before you today to receive The King Faisal International Prize for Science. Please let me express my great appreciation to The King Faisal Foundation, to the Kingdom of Saudi Arabia, and to all of you who are gathered here, for bestowing this very great honour upon me.

Traditionally, the goal of an academic scientist is scholarly research and the investigation of the natural world - new knowledge for its own sake, in other words. That The King Faisal International Prize Acknowledge work of significance to mankind is enormously gratifying to me, because it has been my life's desire to create chemistry that is not only new, but also truly useful.

Whether you realize it or not, useful chemistry is a subject the citizens of the Kingdom of Saudi Arabia already know a great deal about, because petroleum is unquestionably one of the world's most useful chemicals.

Myriads of hydrocarbon molecules are what make oil so precious and so valuable. When these molecules are treated as raw energy, as a fuel source for example, their total combustion with atmospheric oxygen results in energy, but shatters their sophisticated structures into the tiny molecules carbon dioxide and water. Oil's hydrocarbon components are put to a higher use when they become the building blocks for the plastics and polymers that are everywhere around us. Agricultural and industrial chemicals take greater

advantage still of the hydrocarbon's potential, but the kind of organic chemistry I practice is devoted to developing even more efficient uses for oil's precious potential, to developing processes that leave the molecules essentially intact amid with an oxygen atom attached in a very special way.

Such molecules are relatively inexpensive to produce but have exceedingly valuable functions, such as components for new drugs.

In a way, I may be the person in this room to whom oil is most precious, because I stand in awe of the power of its simple hydrocarbon building blocks, this stored potential that nature has laid down for mankind's future.

The King Faisal International Prize for Science broadcasts a message to the scientific world that science should serve mankind, not just the economic concerns of industry or the political concerns of governments. The King Faisal International Prize for Science is a reminder to the scientific world that progress should be measured by how it serves mankind.

Though we are of different faiths, I believe we worship a God who tells us that all men are our brothers, and who instructs each one of us to work for the good of our community and the community of man, nor merely for personal gain. Despite being so many thousands of miles from my home and among you whose land and whose lives are so very different from my own, we are brought together because we share these concerns for the brotherhood of Man.