

**PRESS RELEASE  
WINNERS ANNOUNCED  
1990/1410H KING FAISAL INTERNATIONAL PRIZE  
FOR  
SCIENCE**

**Topic: CHEMISTRY**

King Faisal International Prize in Science for this year has been awarded to the following three eminent scientists,

**Prof. Dr. Raymond Urgel Lemieux**  
University of Alberta, Canada

**Prof. Dr. Frank Albert Cotton**  
Texas A and M University, USA

**Prof. Dr. Mustafa Amr El-Sayed**  
University of California, USA

for their pioneering work in chemistry. The award of the Prize to the three candidates reflects the high reputation of the King Faisal Foundation.

Each of the winners is distinguished in one of the basic branches of chemistry, namely Organic, Inorganic and physical chemistry, respectively. The following represent short summaries of the achievements of the three winners:

**1. Professor Raymond Urgel Lemieux**

Professor Lemieux is considered the international leader in the field of carbohydrate chemistry, an area of considerable complexity dealing with molecules and structures involved in many life processes. He was the first to chemically synthesize sucrose. The major impact of his work became apparent when he focused on the synthesis of oligosaccharides involved in fundamental cell-cell and antigen-antibody recognition actions, leading to the development of various products of Importance in blood group typing and blood purification before Transfusion.

## **2. Professor Cotton**

Professor Cotton is a world leader in the area of organometallic chemistry, metal carbonyl chemistry as well as metal atom cluster species. Through his pioneering work on multiple bonds between metal atoms, he has opened a new chapter in inorganic chemistry.

He has also been one of the most prolific contributors to scientific literature with over 1000 publications and several textbooks to his credit.

## **3. Professor Mostafa Amr El-Sayed**

Professor El-Sayed is an outstanding physical chemist. His high-quality work has placed him in the forefront of contemporary spectroscopists.

He has used spectroscopic methods, including lasers in the study of rapid chemical reaction kinetics. His work culminated in the elucidation of the mechanism underlying the light energy storage reaction involving bacteriorhodopsin.