

**THE NATIONAL ACADEMY OF SCIENCES**

*Cordially invites friends of science education  
and their families to attend  
A special holiday program and reception*



**"Once Upon A Christmas Cheery  
in the Lab of Shakhashiri"**



*Presented by Bassam Z. Shakhashiri*

*On Monday, December 16, 1991, at 7:30 pm  
The National Academy of Sciences  
2100 C Street, N.W., Washington, D.C.*

*This program commemorates the 200th anniversary  
of the birth of Michael Faraday, the noted English  
physicist and chemist. Faraday originated the  
tradition of Christmas Lectures for children at the  
Royal Institution of Great Britain in the 1840s.*

*This lecture will contain dramatic demonstrations  
with multicolored liquids, exploding balloons,  
flames and smoke, blasts and excitement.*

*This fun-packed and educational science presentation is aimed at people of all ages.  
The program is free, but seating is limited and reservations are required.*

**FOR RESERVATIONS AND INFORMATION, CALL (202) 334-1369 BY DECEMBER 11**

**DR. BASSAM Z. SHAKHASHIRI** is Professor of Chemistry at the University of Wisconsin. He has had a distinguished career in chemistry and science education, serving as Assistant Director of the National Science Foundation for Science and Engineering Education from 1984 to 1990. Dr. Shakhashiri is a noted lecturer and author and is renowned for his development and use of demonstrations in the teaching of chemistry. He is the Founding Director of the Institute for Chemical Education at the University of Wisconsin-Madison and has served as a consultant to the Chicago Museum of Science and Industry, where he developed the first interactive museum chemistry exhibit in the United States. Dr. Shakhashiri has received many awards, including the Keikhofer Distinguished Teaching Award from the University of Wisconsin-Madison, the Manufacturing Chemists Association Catalyst Award, the American Chemical Society's James Flack Norris Award for Outstanding Achievement in the Teaching of Chemistry, and the ACS Award in Chemical Education.

**MICHAEL FARADAY**, the noted English physicist and chemist, lived from 1791 to 1867. He was a gifted lecturer and began giving his Christmas Lectures for Children at the Royal Institution of Great Britain in the 1840s. Faraday loved simplicity, and he had a strong sense of the dramatic. The lectures became very popular, and even the Prince of Wales attended and learned about the mysteries of electricity. Faraday sought to awaken the sense of wonder in his listeners. He knew that once a person could be made to wonder about the world, it was only a short step to studying it. Faraday emphasized that if one looked closely at the most ordinary thing, such as a burning candle, it ceased to be ordinary and became somehow miraculous. Faraday urged his audience to see and judge for themselves, to experiment, and to enter wholeheartedly into the world of science.