



**Third Annual
HOLIDAY CHEMISTRY LECTURE**

**"The All-New CHRISTMAS CHEERY
IN THE LAB OF SHAKHASHIRI"**



**Dr. Bassam Z. Shakhshiri
Assistant Director for Science
and Engineering Education,
National Science Foundation**

**Wednesday, December 28, 1988
4:00 and 7:30 p.m.
MUSEUM OF SCIENCE
BOSTON, MASSACHUSETTS**

**Welcome by
Mr. Bradford H. Towle, Interim Director,
Museum of Science
and
Dr. Thomas R. Gilbert,
Northeastern University
and Chair, Northeastern Section,
American Chemical Society**

**Introduction of Dr. Shakhshiri by
Dr. Jerry A. Bell,
Simmons College**

Michael Faraday's Christmas Lecture

Michael Faraday, the noted English physicist and chemist, lived from 1791 to 1867. He was a gifted lecturer and he began giving his Christmas Lectures for children at the Royal Institution of Great Britain in the 1840's. Faraday loved simplicity and he had a strong sense of the dramatic. His audience entered wholeheartedly into the world of science with him as guide. His ideas were still considered very unorthodox at that time, and children -- who had not yet adopted conventional ideas -- would react enthusiastically to the ones he presented. Eventually the Lectures became very popular and even the Prince of Wales attended and learned about the mysteries of electricity.

Faraday sought to awaken a 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. He strove to point out that if you looked closely at the most ordinary thing, such as the force of gravity, it ceased to be ordinary and became somehow miraculous.

Faraday did all he could to urge his listeners to see and judge for themselves, to experiment -- to question nature directly -- whenever anyone discovered something out of the ordinary.

Bassam Z. Shakhashiri is currently the Assistant Director for Science and Engineering Education of the National Science Foundation in Washington and is on leave of absence from his position as Professor of Chemistry and Director of the Institute for Chemical Education at the University of Wisconsin-Madison. He was born in Lebanon where he attended high school. After a year at the American University in Beirut, he completed his undergraduate work at Boston University in 1960. He earned his MS and PhD degrees at the University of Maryland. Dr. Shakhashiri is well known for development and effective use of demonstrations in teaching chemistry. He has presented these demonstrations in schools as well as in less conventional settings such as shopping malls and retirement homes. As a consultant to the Chicago Museum of Science and Industry he helped develop an interactive chemistry exhibit, the first of its kind in this country. He taught at the University of Illinois from 1968-1970, where he learned about Michael Faraday's Christmas Lecture from Professor Gilbert P. Haight, Jr., who had learned about it from Princeton University's Professor Hubert Alyea. His most recent book, Chemical Demonstrations: A Handbook for Teachers of Chemistry, was published in 1983 (Vol. I) and 1986 (Vol. II) by the University of Wisconsin Press (114 N. Murray Street, Madison, Wisconsin 53715).

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lecture**

