

Credits

Project Directors and Producers

Stephen L. Rabin, Project Director

Mr. Stephen L. Rabin is the president of the Educational Film Center (EFC) in Annandale, Virginia and has many years of experience working on television productions. Mr. Rabin has directed and produced many productions including "Critique" (WNET-TV Channel 13), a 26-hour Emmy-nominated series examining the arts and critics (producer), and "Newsfront," a nightly one-hour news program for the Eastern Educational Television Network. Mr. Rabin has also served as director of media programs for the National Endowment for the Humanities.

Prof. Nava Ben-Zvi, Ph.D., Academic Director

Professor Ben-Zvi serves as the president of Hadassah College, Jerusalem, as well as chair of the board of the Bloomfield Science Museum and chair of the Israel Young Scientist Contest. Her academic experience includes positions as chair and professor at the Science Teaching Center at Hebrew University; co-director of the Snunit Educational Information System; and visiting associate professor at the Department of Chemistry and Biochemistry at the University of Maryland. She has also served as a member of the Founding Committee of the Jerusalem College of Technology, chief consultant of the System Design of Technological Training at Intel Israel, and chair of the Ministry of Education's Committee for National Education Assessment of Science and Technology at the Primary School Level. Professor Ben-Zvi is the recipient of several prizes: the Jubilee Award for Excellence in CMC Based Education; the Moach 1st National Award; the Kay's Award for Outstanding Technology and Science Innovation for her work with Snunit, and the Gold Apple Award and Blue Ribbon Award for the Periodic Table Program of the World of Chemistry. In addition to producing about 50 textbooks, Professor Ben-Zvi has published over 25 papers. Professor Ben-Zvi holds a Ph.D. in chemistry from the Hebrew University of Jerusalem.

Tzachi Milgrom, Ph.D., Academic Supervisor

Dr. Tzachi Milgrom serves as the head of academic affairs at Hadassah College, an M.A. and Ph.D. thesis supervisor at the Science Teaching Center at Hebrew University of Jerusalem, and the head of academia at the Dimona Teacher's Center. Dr. Milgrom holds a Ph.D. (1989, Hebrew University of Jerusalem) in education for sciences and has an extensive background in this field. In the past, Dr. Milgrom has served as a head of the department at the Jerusalem Educational Authority's Science Technology and Computers center, head of the physics and chemistry divisions at the Ministry of Education's Curriculum Center, and assistant director of the department of science and technology at the Ministry of Education.

Ira H. Klugerman, Executive Producer

Ira H. Klugerman is the vice president at the Educational Film Center (EFC), where he has functioned as executive producer, director, producer, and project director for film and television since 1972. Recently he has served as executive producer for "Economics USA," a 28-part Annenberg/CPB documentary telecourse and "Out of Time," a one-hour historical fiction drama for NBC. Mr. Klugerman has served as project director and executive producer for "Powerhouse," a youth action-adventure series on Nickelodeon, and as the executive producer for "Give & Take," a youth series on economics, for PBS.

Board of Advisors

Mary Virginia Orna, Ph.D., Chair of the Advisory Board

Mary Virginia Orna received her Ph.D. in analytical chemistry and is a professor of chemistry at the College of New Rochelle from 1996 to the present. She did her postdoctoral work at the Laboratory of Molecular Biophysics; was a National Institute of Health Fulbright Fellow for Israel, 1994-95; and is author, co-author, and editor of 10 books and over 100 research papers. She is past-chair of the Division of Chemical Education of the American Chemical Society; was New York State Professor of the Year, 1989; and received the American Chemical Society George C. Pimentel National Award in Chemical Education, 1999. She has served as editor of *Chemical Heritage Magazine* from 1996 to 2000 and has been project director of numerous teacher professional development projects through NSF and the Eisenhower program.

Credits, cont'd.

Diane Bunce, Ph.D.

Dr. Bunce is associate professor of chemistry at Catholic University and chair of the Division of Chemical Education of the American Chemical Society.

Gwen Marbury

Gwen Marbury is a former chemistry teacher from DeMatha High School in Hyattsville, Maryland. She has an M.S. in analytical chemistry from Howard University and is a Ph.D. candidate in inorganic chemistry.

Lois Waters

Lois Waters is a former high school chemistry teacher and director of teacher professional development at Morgan State University. She is past president of the Maryland Association of Science Teachers.

Donald McKinney

Donald McKinney is a retired chemistry teacher from Radnor High School in Radnor, Pennsylvania. He is a researcher/writer for the Chemical Heritage Foundation Pharmaceutical Achievers Historical Web site.

Ronald Tempest

Ronald Tempest is a chemistry teacher at Germantown Academy in Fort Washington, Pennsylvania. He is a former leader of teacher professional development in the U.S., Uganda, India, and Guatemala.

Ellen Rothschild

Ellen Rothschild is a former high school chemistry and physics teacher. She is project coordinator for Goals 2000 Professional Development Schools Project.

The Teachers

Isoke D. Baptiste, Friendship Edison Collegiate Academy, Washington, DC

Isoke Baptiste is lead teacher in physics and chemistry at Friendship Edison Collegiate Academy, Washington, D.C. She is former laboratory technologist at Bayer and Laboratory Corporation of America. She received a Bachelor's of Science in biology from St. Augustine's College in Raleigh, North Carolina.

Activities: Water Softening Laboratory—Unit 4.2; Purifying Water Laboratory—Unit 7.5

Veatta L. Berry, Thomas A. Edison High School, Fairfax, VA

Veatta Berry is a teacher of chemistry technology, Chemistry I, and IB Chemistry I at Thomas A. Edison High School in Fairfax County Public Schools, Virginia. She received a B.S. in chemistry from Bridgewater College, Virginia and her M.Ed. in secondary science education from George Mason University, Virginia.

Activities: Featuring Molecules Class—Unit 2.7; Radioactive Sources Laboratory—Unit 3.6; Separating Mixtures laboratory—Unit 5.6; Analysis of Water Laboratory—Unit 7.3; Glowing Pickle Demonstration—Unit 8.2; Energy Levels Laboratory—Unit 8.2

Michael A. Clarke, Ph.D., Duke Ellington School of the Arts, Washington, DC

Michael Clarke is chair of the math and science departments at Duke Ellington School of the Arts in Washington, D.C. and a lecturer at Howard University in Washington, D.C. He is former assistant professor and associate director of the SEU College Access Program at Southeastern University. Dr. Clarke received his Ph.D. from Howard University.

Activities: Nuclear Submarine Class—Unit 3.7; Significant Figures Demonstration—Unit 4.3

Credits, cont'd.

Alan J. DeGennaro, Westminster High School, Westminster, Maryland

Alan DeGennaro is a teacher of chemistry, physical science, and astronomy, and the chair of the science department at Westminster High School in Westminster, Maryland. He received his M.A. in secondary science teaching from the University of Maryland.

Activities: Light and Color Demonstrations—Unit 2.6; The Chemistry of Light Class—Unit 3.5; Cherry Coke Distillation Laboratory—Unit 5.3; Calcium in Tums Activity—Unit 6.4; Solubility Class Activity—Unit 7.2; Aluminum Recycling Laboratory—Unit 7.6; Flame Test Demo and Activity—Unit 8.2; Polymer Strength Laboratory—Unit 8.5

Catherine Del Conte, Annandale High School, Annandale, VA

Catherine Del Conte is a learning specialist and special education teacher for 10th through 12th grades for five subjects including Chem Tech. She received her M.A. in education with a specialty in special education, ED/LD from the George Mason University School of Education in Virginia.

Caryn Galatis, Thomas A. Edison High School, Fairfax, VA

Caryn Galatis is a teacher of chemistry and chair of the science department at Thomas A. Edison High School in Fairfax County, Virginia. She was awarded the American Chemical Society Teacher of the Year in 1991. She received a B.S. in chemistry from Mary Washington College and her M.Ed. in education from the University of Virginia.

Lisa Fay Morine, Watkins Mill High School, Montgomery County, Maryland

Lisa Fay Morine is a teacher of chemistry at Watkins Mill High School in Montgomery County, Maryland. She received a B.S. with a concentration in chemistry from the University of Nevada and received her M.A. in education from The Johns Hopkins University in Baltimore, Maryland.

Activities: The Stoichiometry of Cooking—Unit 5.2; Personal Chemistry Topic—Unit 5.5; Burning Peanuts Laboratory—Unit 6.6

Felix C. Muhiga, Annandale High School, Annandale, VA

Felix Muhiga has an M.Sc. and a B.Sc. in geology, both from Punjab University in India. He holds a Maryland State Department Education License with an endorsement for chemistry and Earth science, has extensive experience in education, and has been in this field for over 20 years.

Activities: Glue-Ball Laboratory—Unit 2.2; The Energy Content of Food Laboratory—Unit 6.6; Identifying Solutions Laboratory—Unit 8.3

Demetria L. Newsome, Paul Laurence Dunbar Community High School, Baltimore, Maryland

Demetria Newsome is the head of the science department and biotechnology program coordinator at Paul Laurence Dunbar Community High School in Baltimore, Maryland. She received an M.S. in education (curriculum and instruction) from The Johns Hopkins University in Baltimore, Maryland.

Leslie Ann Pierce, Ph.D., Thomas A. Edison High School, Fairfax, VA

Leslie Ann Pierce is a teacher of biology and chemistry at Thomas A. Edison High School in Fairfax, Virginia. She is a consultant to the National Academy of Sciences, and on the Committee on Programs for Advanced Study of Science and Mathematics in American High Schools. She received an Ed.D. from the University of Massachusetts.

Activities: Periodic Table Hopscotch Laboratory—Unit 1.6; Polarity and Solubility Demonstration—Unit 2.4; Iron in Your Cereal Demonstration—Unit 6.2; Compounds From Plants Demonstration and Laboratory—Unit 6.3; Hydrogen Peroxide Decomposition Laboratory—Unit 6.7

Thomas G. Pratuch, Annandale High School, Annandale, VA

Thomas Pratuch is a teacher of chemistry, department chair, standards-based facilitator, and science fair coordinator at Annandale High School in Annandale, Virginia. He received his M.Ed. from Marymount University in Arlington, Virginia.

Activities: Atomic Structure Class—Unit 1.2; Modeling Bonding Activity—Unit 1.4; Activity Series Laboratory—Unit 4.4; Discussing Chemistry and Advertising—Unit 8.6

Credits, cont'd.

Kelly A. Rottmann, Watkins Mill High School, Montgomery County, MD

Kelly Rottmann is a teacher of chemistry at Watkins Mill High School in Montgomery County, Maryland. She received a B.A. from Clemson University, majoring in science teaching: biological sciences.

Activities: Half-Life Activity and M&Ms—Unit 3.6

Gannon Susumu Sugimura, Annandale High School, Annandale, VA

Gannon Sugimura is a teacher of chemistry and the science concepts and co-coordinator of Annandale's High School Science Fair. He received a B.S. from Georgetown University in Washington, D.C.

Activities: Investigating Mixtures Laboratory—Unit 4.4

Irene C. Walsh, St. Andrew's Episcopal School, Potomac, MD

Irene Walsh is a teacher of chemistry and the head of the science department at St. Andrew's Episcopal School in Potomac, Maryland. She received an M.Ed. in secondary science education from the University of Pittsburgh, Pennsylvania.

Activities: Colliding Particles Demonstration—Unit 3.2; Reaction Rates Demonstration and Laboratory—Unit 3.3; Water Volumes in Equilibrium—Unit 4.6; Electrolytes in Solution Demonstrations—Unit 4.7

Sharon K. Walton, Watkins Mill High School, Montgomery County, MD

Sharon Walton is a teacher of chemistry and the past coach of Chemath teams at Watkins Mill High School in Montgomery County, Maryland. She received her M.S. in secondary education, science from the University of Maryland.

Activities: Building Molecules Laboratory—Unit 1.7

Pernell V. Williams, Friendship-Edison Collegiate Academy, Washington, DC

Pernell Williams is science curriculum coordinator at Friendship-Edison Collegiate Academy in Washington, D.C. and a former volunteer tutor for the Homeless Children's Tutorial Project, Inc. Majoring in biological sciences, he received a B.A. from Hampton University in Virginia and studied medicine at the University of Pennsylvania School of Medicine, Philadelphia.

Activities: Periodic Trends Activity—Unit 1.3; Diluting Color Demonstration and Activity—Unit 2.3

The Scientists and Experts

Lou Allamandola, Ph.D., Astrochemist, NASA Ames Research Laboratory

Dr. Louis Allamandola is the Astrochemistry Laboratory group leader at NASA's Ames Research Center in California. He has over 25 years of experience in laboratory studies on the chemistry, composition, and spectroscopy of interstellar matter, with emphasis on interstellar and cometary ices. He has over 160 publications as peer-reviewed journal articles and book chapters, and has edited two books with Xander Tielens on Interstellar Dust. Lou has served on several NASA advisory councils and is currently an active member of NASA's Origins Subcommittee.

Kevin Chapman, Ph.D., Senior Director, Medicinal Chemistry Research, Merck & Co., Inc.

Prof. Terry Collins, Ph.D., Thomas Lord Professor of Chemistry, Carnegie Mellon University

Prof. Terry Collins is Thomas Lord Professor of Chemistry at Carnegie Mellon University, Pittsburgh, Pennsylvania. A champion in the field of green chemistry, Prof. Collins has been recognized internationally for his work in creating a new class of oxidation catalyst with the potential of enormous, positive impact on the environment. Prof. Collins heads the Institute for Green Oxidation Chemistry at Carnegie Mellon. His honors include the Environmental Protection Agency's 1999 Presidential Green Chemistry Challenge Award and Japan's Society of Pure and Applied Coordination Chemistry Award.

Credits, cont'd.

Brett Dunlap, Ph.D., Research Physicist, Naval Research Laboratory

Brett Dunlap is a research physicist in the Theoretical Chemistry Section of the Naval Research Laboratory, Washington, DC. He received his Ph.D. in Physics in 1976 from John Hopkins University with a dissertation entitled "Pseudo-Coulomb Wavefunctions in Molecular Physics with Applications of H₂⁺ and H₂." Brett is a Fellow of the American Physical Society.

Prof. Jack Fischer, Ph.D., Professor of Chemistry, University of Pennsylvania

Since 1985, Dr. Jack Fischer has been a professor of materials science and engineering at the University of Pennsylvania. He received his Ph.D. in nuclear science and engineering from Rensselaer Polytechnic Institute (1966), followed by a postdoctoral fellow in solid state physics at Ecole Normale Superieure, Paris (1966-7). His research interests include solid state and chemistry intercalation compounds; x-ray and neutron scattering; phase transitions, lattice and molecular dynamics; layer intercalates, conjugated polymers, fullerene and nanotube materials, and disordered solids. Jack is a Fellow of the American Physical Society.

Laurie Geller, Ph.D., Program Officer, National Academy of Sciences

Dr. Laurie Geller is a program officer, Board of Atmospheric Sciences and Climate of the National Research Council/National Academy of Sciences (NRC/NAS). She served as project director for the following NRC studies: Atmospheric Effects of Aviation; Climate and Infectious Disease; Global Air Quality. Laurie received her Ph.D. in atmospheric chemistry from the University of Colorado (1996) with a thesis entitled "Global Measurements of the Greenhouses Gases Nitrous Oxide and Sulfur Hexafluoride."

Carlos Gonzalez, Ph.D., Research Chemist/Analytical Chemistry, National Institute of Standards and Technology

Dr. Carlos Gonzalez is a research chemist in the Physical and Chemical Properties Division of the National Institute of Standards and Technology (NIST). From 1992 to 1997, Carlos was a scientific specialist in the development and application of computational chemistry software at the Pittsburgh Supercomputing Center at Carnegie Mellon University, where he continues to teach and serve as a research advisor. He received his Ph.D. in chemistry from Wayne State University (1990).

Phil Grucci, Ph.D., Grucci Fireworks, Inc.

Phil is the executive vice president of Fireworks by Grucci. The family has a 152-year history working with fireworks. Their pyrotechnics business started with Phil's great-great-grandfather Anthony Lanzetta, who first ignited fireworks in 1850 in a small seaport town in southern Italy. They won the gold medal at the Monte Carlo International Fireworks Competition in 1979 and have created fireworks displays for six consecutive presidential inaugurations, as well as the 2002 Winter Olympics in Salt Lake City.

Prof. Darleane Hoffman, Ph.D., Professor of Chemistry, University of California-Berkeley

Dr. Darleane C. Hoffman is a professor of the Graduate School of Chemistry at the University of California, Berkeley; faculty senior scientist and co-leader of the Heavy Element Nuclear and Radiochemistry Group at the Lawrence Berkeley National Laboratory (LBNL), and charter director and senior advisor of the Glenn T. Seaborg Institute for Transactinium Science at Lawrence Livermore National Laboratory (LLNL). In March 2000, the American Chemical Society (ACS) awarded Dr. Hoffman its highest honor, the Priestly Medal.

Stephen E. Long, Ph.D., Research Chemist/Analytical Chemistry, National Institute of Standards and Technology

Willie E. May, Ph.D., Chief of Analytical Chemistry, National Institute of Standards and Technology

Dr. Willie E. May is the chief of the Analytical Chemistry Division at the National Institute of Standards and Technology. He received his Ph.D. in analytical chemistry from the University of Maryland at College Park. He joined the National Bureau of Standards as a Research Chemist, became group leader for Liquid Chromatography, Organic Analytical Research Division, and became chief of the division. Dr. May has been awarded the Arthur S. Flemming Award for Outstanding Individual Performance in the Federal Government. He has also received the NOBCCHE Percy L. Julian Award for Outstanding Research in Organic Analytical Chemistry, as well as the 2001 Distinguished Service in the Advancement of Analytical Chemistry Award given by the Analytical Division of the American Chemical Society.

Credits, cont'd.

Prof. Laura E. Niklason, M.D., Ph.D., Assistant Professor of Anesthesiology and Biomedical Engineering, Duke University Medical Center

Dr. Laura E. Niklason received her Ph.D. in biophysics in 1988 from the University of Chicago and her MD in 1991 from the University of Michigan. Dr. Niklason worked as a resident in anesthesia at Massachusetts General Hospital and a critical care fellow. She has worked as a research affiliate at Massachusetts Institute of Technology of Anesthesia and Biomedical Engineering at Duke University. She was selected as one of 21 US News and World Report Innovators for 2001.

Prof. Linus Pauling, Ph.D.

Prof. Linus Pauling (1901-1994) received his Ph.D. in chemistry with High Honors from Cal. Tech. In 1933, he became the youngest person to be made a member of the National Academy of Sciences. His most prominent book, *The Nature of Chemical Bonding*, was published in 1939. In 1948, he finally succeeded, after a few hours of attempts with paper folding, in working out the alpha helix of a polypeptide, while bed-bound in Oxford with nephritis. For this work he received, in 1954, the Nobel Prize for Chemistry. Prof. Pauling also conducted research on the chemistry of the brain and its effect on mental illness, sickle cell anemia, and the effects of Vitamin C on the common cold and cancer.

During World War II, Prof. Pauling worked at Cal. Tech but refused to work on the Manhattan Project. While this was going on, his wife became increasingly active in socialist politics, and together they fought the arrests of Japanese-Americans. They also became concerned with atomic weaponry and radiation and, hence, joined the Scientists Movement, which advocated safe regulation of nuclear power, and protested atomic bomb testing. He received the Nobel Prize for Peace in 1962.

Throughout his career, Linus Pauling held controversial views. He left high school because of his objection to several school policies, and was granted his diploma only after becoming Nobel Prize winner. He was almost ousted from Cal. Tech, and encountered difficulty receiving permission to leave the country on several occasions, due to his strong objection to the under-oath questioning of his political convictions in the Senate Investigating Committee on Education of the State of California; and he was often criticized for relying on intuition rather than on actual data in his research. Despite this, he received two Nobel Prizes, every major award in chemistry, a Guggenheim fellowship at the University of Munich, and the Presidential Medal of Merit for his work on crystal structure and world peace (1947, Truman). He died in 1994, at the age of 93.

Jean Posbic, Ph.D., Director of Technical Services, BP Solar

Dr. Jean Posbic grew up in Lebanon and France and earned his doctorate in physics from Claude Bernard University in Lyon, France. He has been with BP Solar for 14 years in various positions including system engineering, product development, and R&D director. He is very active in the PV community as an expert on UL, ASTM, and IEC standards committees.

Elsa Reichmanis, Ph.D., Director of Materials Research Dept., Bell Labs/Lucent Technologies

Dr. Elsa Reichmanis is the Bell Labs Fellow and director of the materials research department at Bell Laboratories, Lucent Technologies. She received her Ph.D. in chemistry from Syracuse University and has had an impact on the field of microlithography, which is central to the manufacture of electronic devices and a cornerstone for the whole microelectronics industry.

Prof. Hugh W. Salzberg, Ph.D., Chemistry Historian

Dr. Hugh W. Salzberg studied both organic and physical chemistry at City College and New York University. He was awarded a Ph.D., worked as a research scientist at the U.S. Naval Research Laboratory in Washington D.C., and taught physical and analytical chemistry at City College for over 30 years. He retired as a full professor in 1986. He also served as a book review editor of *The Electrochemical Society Journal* for about 10 years. His best known published work is the book, *From Caveman to Chemist*, which grew out of his series of lectures on medieval alchemy.

Melissa Anne Smrz, Unit Chief, DNA II, FBI

Ms. Melissa Anne Smrz is the supervisory special agent and chief of the DNA Analysis Unit II at the FBI Laboratory in Washington, D.C. She received her M.S. in criminalistics from the University of Chicago. She is a member of the American Academy of Forensic Science, as well as the Canadian, Mid-Atlantic, and Midwestern Societies of Forensic Scientists.

Credits, cont'd.

Prof. Roy Tasker, Ph.D., Associate Professor, University of Western Sydney

Dr. Roy Tasker received his Ph. D. from the University of Otago and is presently on full-time release from his position as an associate professor at the School of Science, Food, and Horticulture at the University of Western Sydney in Australia. He has been a teacher for over 20 years. His interests are in interactive multimedia in chemistry and biochemistry. His major research focus is the VisChem Project, which produces materials based on educational research of student misconceptions and integrates the laboratory, molecular, and symbolic thinking levels of chemistry.

J. Craig Venter, Ph.D., Former President and Chief Scientific Officer, Celera Genomics

Dr. J. Craig Venter received his Ph.D. in physiology and pharmacology in 1975 from the University of California at San Diego. Dr. Venter is also the founder and chairman of the board of The Institute for Genomic Research (TIGR), a not-for-profit genomics research institution located in Rockville, Maryland. He was the President of The Institute for Genomic Research and worked in various capacities at the National Institute of Neurological Disorders and Stroke at the National Institute of Health.

Sylvia Ware, Director of Education, American Chemical Society

Sylvia Ware received her B.Sc. (Tech.) A.M.C.S.T. in chemistry, chemical engineering, and metallurgy from Manchester University in England, and studied science education at Atlanta University in Georgia. Since 1987, she has been the director of the education and international activities division of the American Chemical Society (ACS). Ms. Ware is a member of the Board of Trustees of the Chemical Education Foundation.

Prof. Richard Wool, Ph.D., Professor of Chemical Engineering, Center for Composite Material, University of Delaware

Dr. Richard Wool received his Ph. D. in materials science and English from the University of Utah. He is presently the program director of ACRES, the Affordable Composites from Renewable Resources Program, at the University of Delaware, as well as a professor of chemical engineering at their Colburn Laboratory. He was a founding member of the Bio/Environmentally Degradable Plastic Society, the chairman of Symposia at the Materials Research Society, and a Fellow at the American Physical Society. Dr. Wool's professional expertise is in materials science and engineering (polymer physics), fracture mechanics (polymer interfaces), biodegradable plastics (plastics engineering), materials from renewable plastics (spectroscopy), and composites (adhesion).

Credits, cont'd.

Production Credits

A representative credit list from program 8:

Executive Producer

Ira H. Klugerman

Producer/Writer

Sally Heldrich

Co-Producer

Bryan Reichhardt

Story Editor

Ruth Pollak

Editor

Bill Reifenberger

Director of Post-Production

Dan Rose

Production Manager

Anne Neison

Videographers

Chris Fetner

Ken Pexton

David Arnold

Pat Kehs

Bryan Reichhardt

Sound Recordists

Rob Shire

Jon Packer

Ken Pexton

Kurt Uebersax

Associate Producer

Kevin O'Connor

Production Assistants

Doug Kerrigan

Christopher Jackson

Acknowledgements

Annandale High School

Fairfax County Public Schools

Montgomery County Public Schools

Thomas A. Edison High School

Thomas Jefferson High School for Science and Technology

Westminster High School

Stills and Footage Courtesy of

Celera Genomics

Kawata Lab Osaka University

Science Department, University of Pennsylvania

Monsanto Co.

NASA

National Library Of Medicine

National Park Service

Upjohn Co.

Vischem Project

A Production of

Educational Film Center and

Hadassah College, Jerusalem

Copyright © 2003

Corporation for Public Broadcasting

Credits, cont'd.

Web Site Development

The Web site was developed at Hadassah College: <http://www.hadassah-col.ac.il>

Content Development

Smadar Bressler, Ph.D., Content Developer, Head of Project, Hadassah College, Jerusalem

Dr. Smadar Bressler is the content expert for *Reactions in Chemistry*. Dr. Bressler holds a degree in physical chemistry from the Hebrew University of Jerusalem and has published several papers in international literature. Dr. Bressler is former head of Regional Chemistry Laboratories for Youth at the Hebrew University in Jerusalem.

Tzachi Milgrom, Ph.D., Academic Supervisor, Head of Academic Affairs, Hadassah College, Jerusalem

Prof. Nava Ben-Zvi, Ph.D., Academic Director, Professor of Science Education, President, Hadassah College, Jerusalem

Web Design Development

Elinor Weinberger, Web Master, Hadassah College

Elinor Weinberger is currently working in the Computation Center at Hadassah College, Jerusalem. Ms. Weinberger is former head of ZAHALNET—the Intranet Team of the Mamram Computation Unit in the IDF. She is qualified in the field of computer training, communications, and Internet technologies and has completed a software engineering course for information systems in the IBM Academy. Ms. Weinberger has five years of experience in developing Web-based applications, web-planning concepts, and computerized graphics using technologies such as Java Script, HTML, CSS, and PhotoShop.

Ronen Hirsch, Manager, Computation Center, Hadassah College

Ronen Hirsch is the director of the Computation Center (Computer and Telecommunications) at Hadassah College, Jerusalem, overseeing an interactive design and programming group of six artists and programmers. Mr. Hirsch managed the Web design development in the project.

Editorial Assistant

Rivka Schmell, English Editing, Assistant to President, Hadassah College

Rivka Schmell has bilingual editing, writing, and translating skills. She holds a BA in social sciences from Bar Ilan University in Israel. She has also completed a Webmaster course.