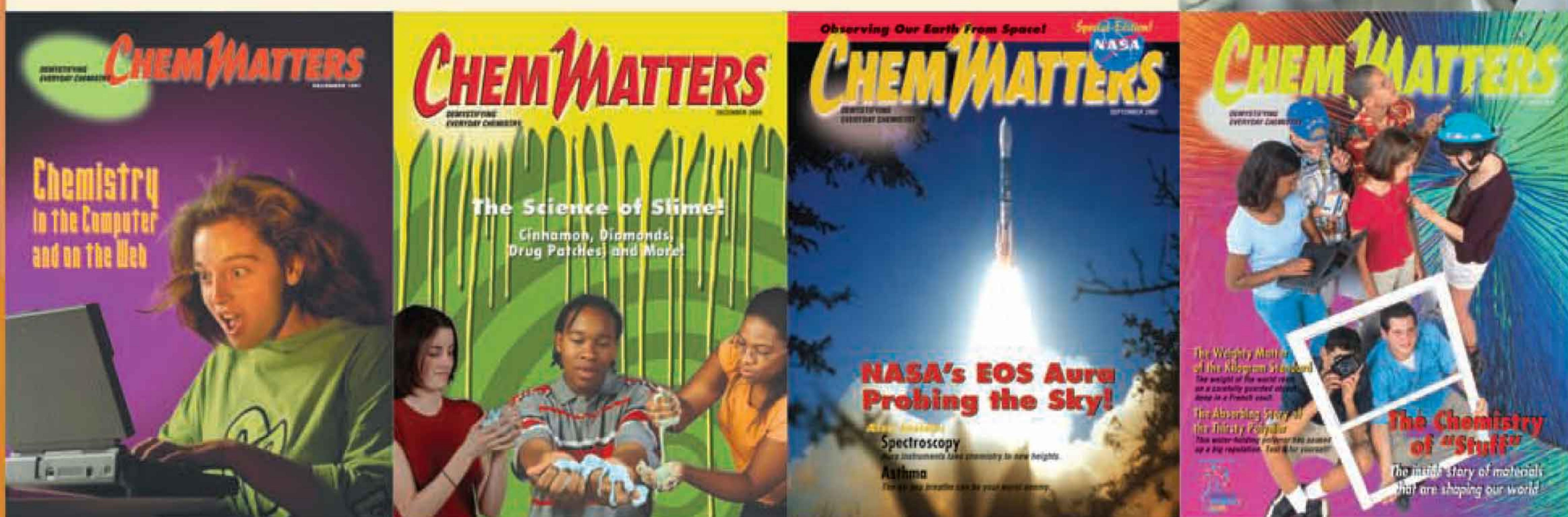
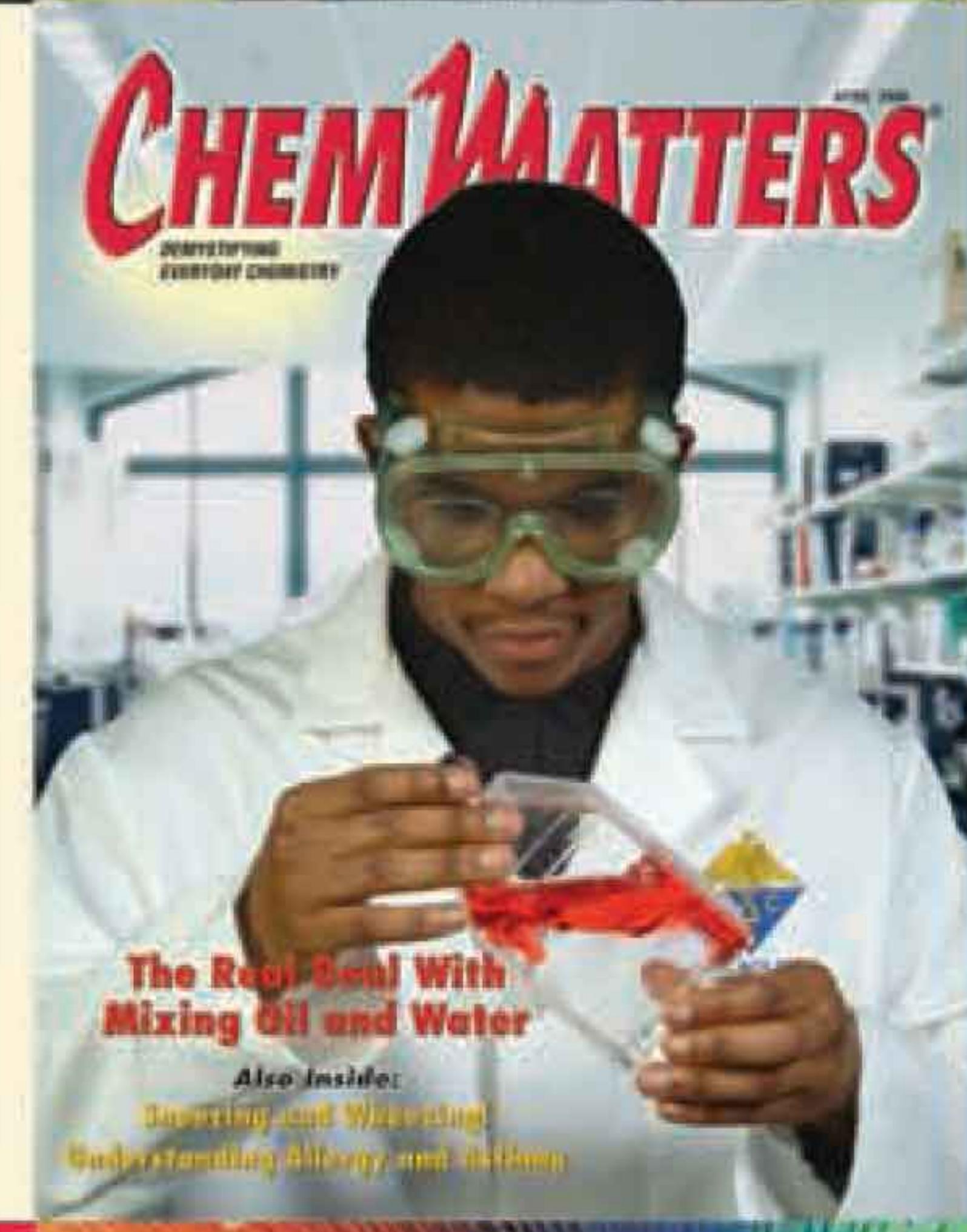


# CHEM MATTERS



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February 1983—April 2008



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Cardulla, Frank, global warming, Sept 01/14

**Globe Program: Science in the Sunshine, The**  
*Globe Program*, Oct 03/31

**Going Against the Flow: The Isolation of Fluorine**  
Davenport, Derek, *Back Burner*, gases, Dec 86/13

**Going for Platinum**  
Williard, Neata, platinum, Apr 05/14

**Gold in Your Tank**  
Baxter, Roberta, gold, Apr 07/8

**Great Hartford Circus Fire, The**  
Rimetz, Brendan, *Cover Story/ChemHistory*, fire protection, Feb 05/4

**Green Chemistry—Benign by Design**  
Ryan, Mary Ann, *Green Chemistry*, chemistry, Dec 99/9

**Green Chemistry—Stopping Pollution Before It Starts**  
La Merrill, Michele, Parent, Kathryn; Kirchhoff, Mary, *GreenChemistry*, stopping pollution, Apr 03/7

**Green Energy—It’s Your**

**Decision**  
Activity, green chemistry,  
Apr 03/8

**Green Flash, The**  
Tinnesand, Michael, light,  
Oct 98/12

**Green Refrigerants**  
Black, Harvey,  
*Green Chemistry*,  
refrigerants, Feb 00/11

**Growing Diamonds**  
Zaugg, Harold, carbon,  
Apr 90/10

## H

**Hackers Anonymous: Microcomputers and Chemistry**  
Tanis, Dave and Kathleen Dombrink, Apr 83/13

**Hair Color: Chemistry to Dye for**  
Raber, Linda, *ChemSumer*, dyes, Apr 02/10

**Happy Birthday, Helium**  
Chown, Marcus, helium, Dec 95/12

**Hindenburg: Formula for Disaster**  
Graham, Tim, Hindenburg, Dec 07/8

**History or Hoax? The Vinland Map**  
Scott, Dan, forgery, Dec 96/12

**Hit and Run**  
Higgins, Kathleen, *MysteryMatters*, chromatography, Feb 87/14

**Hitler's Diaries**  
Urrows, Elizabeth and Henry, *MysteryMatters*, forensics, Oct 89/13

**Homeopathy**  
Goldfarb, Bruce, homeopathy, Dec 91/8

**Homework Helper: Web-Style**  
Krikau, John, *Cover Story*, Internet chemistry, Dec 97/4

**Honey: Bee Food Extraordinaire**  
Haines, Gail, *ChemSumer*, chemistry of honey, Dec 05/13

**Horror and Hope of Thalidomide, The**  
Meadows, Robin, thalidomide, Feb 97/13

**Horse Tale**  
McClure, Michael, *MysteryMatters*, forensics, Apr 91/4

**Horses and Heroin**  
Gottfried, Sandra and Maria Sedotti, *MysteryMatters*, forensics, Oct 88/14

**Hot Air Adventure**  
Sarver, Bart, *Software*, gases, Dec 83/13

**Hot Air Balloons: Gas and Go**  
Vanderborght, Claudia, hot air balloon, Apr 02/4

**Hot and Cold Packs**  
Marsella, Gail, thermodynamics, Feb 87/7

**Hot Meals**  
Scott, Dan and Robin Meadows, *Cover Story*, exothermic reactions, Feb 92/12

**Hot Shirts**  
Bide, Martin, hypercolor, Oct 92/8

**Hot Woodstoves, The**  
Holzman, David, *MysteryMatters*, forensics, Apr 85/14

**How are new pennies different from old pennies?**  
Becker, Robert, *Question From the Classroom*, penny, Feb 03/2

**How Chemistry Helps Make Blood Transfusion Safer**  
Bruce, Natasha, blood transfusion, Feb 08/8

**How Dense Is It?**  
Activity, hydrometer, Feb 02/10

**How do CD players work?**  
Becker, Robert, *Question From the Classroom*, digital information, Dec 02/2

**How do lasers work, and what is so special about laser light?**  
Becker, Robert, *Question From the Classroom*, laser light, Apr 03/2

**How do microwave ovens work?**  
Mixon, Mollie, *As a Matter of Fact*, resonance, Apr 00/16

**How does a candle work?**  
Becker, Robert, *Question From the Classroom*, wax burning, Feb 05/2

**How Many Ways Can You See Red?**  
Activity, candy, Dec 99/8

**How Soap Works**  
Wood, Clair, *Activities*, hard water, Feb 85/12

**How the Cookie Doesn't Crumble ... and Other Sweet Chemistry Secrets**  
Dillard, Mechele, cookie, Dec 07/11

**How the Earth Got Its Aura**  
Allen, Jeannie, *Cover Story*, NASA's Aura mission, Sept 05/4

**How the Right Professor Charles Went Up in the Wrong Kind of Balloon**  
Davenport, Derek, *Cover Story/ Back Burner*, gases, Dec 83/14

**How We Smell and Why We Stink**  
Kimbrough, Doris, *ChemSumer*, human body scents, Dec 01/8

**Human Pheromones: The Nose Knows**  
Kimball, Amy, pheromones, Apr 97/8

**Hydrogen and Helium**  
Linner-Luebe, Marilyn, *Cover Story*, gases, Oct 85/4

**Hydrogen Fuel Cells for Future Cars**  
Jones, Donald, *Cover Story/ Green Chemistry*, fuel cells, Dec 00/4

**Hydrothermal Vents and Giant Tubeworms**  
Rosenthal, Anne M., hydrothermal vents, Dec 03/14

**Hypothermia—Surviving the Big Chill**  
Banks, Peter, hypothermia, Dec 01/14

## — I —

**I saw a video on the Internet in which this guy drops a bunch of Mentos candies into a 2-L bottle of Diet Coke**

Becker, Robert, *Question From the Classroom*, Mentos, Feb 07/2

**I was surfing the Web and found that there is a new hydrogen beer. Is it true?**

Becker, Robert, *Question From the Classroom*, online hoaxes, Feb 02/2

**Ice spikes**

*ChemShorts*, ice, Feb 05/19

**Ice That Burns**

Banks, Peter, gases, Oct 95/8

**If I buy a more expensive high-octane gasoline, will my car run better?**

Becker, Robert, *Question From the Classroom*, gasoline, Dec 00/2

**Images of Anthrax—A Team Approach**

Knopp, Jonathan, molecular modeling, Dec 02/4

**Indiana's Error**

Carroll, Raymond, *Puzzles*, weights, Oct 89/16

**Individual Experiences in Chemistry**

Dombrink, Kathleen, profiles, DNA, Dec 83/2

**Ink**

Miller, Judy, pigments, Feb 93/8

**Insect Arsenals**

Downey, Charles, chemical defense, Oct 93/8

**Instant Hot Pack**

Robson, David, *Activities*, thermodynamics, Feb 87/12

**Interrupted Party, The**

Young, Jay, *MysteryMatters*, combustion, Oct 84/4

**Interview With a Chemist**

Brownlee, Christen, chemical/biological disaster response, Oct 05/18

**Interview With Gerhard Ertl, Winner of the 2007 Nobel Prize in Chemistry**

Pages, Patrice, Nobel, Apr 08/18

**Ion Search**

Padwa, Linda, *Puzzles*, elements, Dec 88/16

**Iron for Breakfast**

Schmidt, Karen, nutrients, Oct 94/13

**Is it true that there are no plans to ban DHMO, one of the most hazardous substances on the planet?**

Becker, Robert, *Question From the Classroom*, dihydrogen monoxide, Oct 02/2

**Is paying extra for nitrogen gas in car tires worth it?**

Becker, Robert, *Question From the Classroom*, nitrogen in car tires, Feb 06/2

**Is water the best fire extinguisher in the kitchen?**

Becker, Robert, *Question From The Classroom*, fire

extinguisher, Apr 01/2

**Isaac Asimov**

Groves, Paul, profiles, Oct 83/13

**It's Anagrams**

Lamb, Dorothy Mann, *Puzzles*, chemistry terms, Oct 94/16

**It's Elementary**

Ladon, Liina, *Puzzles*, crossword, Feb 89/16

## — J —

**John Dalton's First Paper and Last Experiment**

Davenport, Derek, *Back Burner*, color, Apr 84/14

**Joseph Priestley and the All-American Lunch**

Davenport, Derek, *Back Burner*, profiles, Feb 83/14

## — K —

**Keep the Game Rolling**

Black, Harvey, alloys, Feb 99/4

**Kidney Dialysis—A Working**

**Model You Can Make**

Activity, kidney dialysis, Apr 01/12

**Kidney Dialysis—The Living Connection**

Thielk, David, kidney dialysis, Apr 01/10

**Killing for Oil**

Alper, Joseph, *Cover Story*, whale oil, Oct 88/4

**King Midas: Leftovers From his Last Feast**

Miller, Steve, *Cover Story*, analyzing leftovers, Dec 01/4

**Kitty Litter Chem**

Yarnell, Amanda, chemistry of cat litter, Oct 05/12

## — L —

**Lab Olympics**

DiAntonio, Aaron, chemistry competition, Feb 85/13

**Lab on a Stick**

Brownlee, Christen, urine glucose testing, Oct 04/9

**Lab Safety**

McClure, Michael, safety, Oct 86/11

**Lake Nyos Disaster, The**

Dittrich, Bernie; Nourse, Ben, carbon dioxide, Feb 96/13

**Lake Study**

Whisnant, David, *Software*, environment, Oct 84/15

**Lately, in chemistry class, we have been learning all about polymers**

Becker, Robert, *Question From the Classroom*, polymers, Apr 07/2

**Laundry Disks: Miracle or Money Down the Drain?**

Goldfarb, Bruce, detergents, Apr 97/14

**Lava Lite: A Chemical Juggling Act**

McClure, Michael, *Cover Story*, lava lamps, Apr 97/4

**Lead—Beethoven's Heavy Metal Ailment**  
Withgott, Jay, *MysteryMatters*, lead, Oct 01/14

**Lead Poisoning**  
Gough, Michael, lead, Dec 83/4

**Leaf Jewelry**  
Wilt, Rachel, redox, Dec 87/14

**Leavening: How Great Cooks Loaf**  
Rudolph, Melissa, yeast, Apr 96/4

**Life on Mars?**  
Scott, Dan, Mars, Dec 94/10

**Life in a Greenhouse**  
Herlocker, Helen, greenhouse effect, Oct 03/18

**Light-Emitting Diodes—Tune in to the Blues**  
Graham, Tim, *ChemSumer*, light-emitting diodes (LEDs), Apr 01/4

**Light Your Candy**  
Sweeting, Linda, tribo-luminescence, Oct 90/10

**Lightning: Nature's Deadly Fireworks**  
Rohrig, Brian, *Cover Story*, lightning, Apr 04/14

**Lindow Man—Murders in a Bog**  
Sibley, Lynn, *MysteryMatters*, acid-base, Feb 98/7

**Linus Pauling, American Hero**  
Vos, Sarah, Pauling, Oct 07/7

**Lipstick**  
Sibley, Lynn, *Cover Story*, cosmetics, Dec 85/8

**Liquid Bandages—The Future Suture**  
Goldfarb, Bruce, *ChemSumer*, adhesive, Feb 00/9

**Liquid Crystal Displays (LCD)**  
polarized light, Apr 84/10

**Liquid Crystal Display**  
Fruen, Lois, *ChemSumer*, liquid crystal displays, Oct 05/6

**Liquid Crystals**  
Robson, David, crystals, Dec 83/8

**Liquid Nitrogen—Does It Always Freeze?**  
Becker, Robert, *Question From*

*the Classroom*, liquid nitrogen, Feb 04/2

**Lithography Printing—From Rocky Start...to Digital Future**  
Herlocker, Helen, lithography, Oct 01/10

**Lost in Space: Apollo 13's Fight for Survival**  
Scott, Dan, *Cover Story*, chemical explosion, Feb 94/4

**Love Always, Francium**  
Ratzlaff, Becky, periodicity, Dec 85/13

**Luminol—Casting a Revealing Light on Crime**  
Graham, Tim, *MysteryMatters*, forensics, Dec 01/12

**Down to This**  
Vanderborth, Claudia, maple syrup, Feb 02/8

**Margarine Puzzle, The**  
Glover, Donald and Kenneth Kolb, *Puzzles*, water content, Oct 90/16

**Mass of the Earth's Atmosphere, The**  
Tanis, Dave and Kathleen Dombrink, gases, Feb 83/7

**Matches—Striking Chemistry at Your Fingertips**  
Rohrig, Brian, *ChemHistory*, phosphorus, Dec 02/14

**Matching Gifts**  
Kanner, Donald, *Puzzles*, Valentine's Day, Feb 92/16

**Material Safety Data Sheets: Passports to Safety?**  
Tinnesand, Michael, MSDS, Oct 06/18

**Measuring Blood Sugar With a Wave of the Arm**  
Gorss, Jason, *ChemShorts*, diabetes, Oct 04/19

**Measuring Ground-Level Ozone**  
Activity, ozone levels, Sept 02/8

**Megameanings**  
Golomb, Solomon, conversion table, Dec 84/14

**Memory Metal**  
Kauffman, George and Isaac Mayo, *Cover Story*, nitinol crystals, Oct 93/4

**Methane**  
Orna, Mary Virginia, gases, Feb 83/15

**Mezclas Quimicas**  
Preston, Alan, *Puzzles*, Spanish chemical mixtures, Apr 90/16; Apr 92/16; Apr 93/16; Apr 94/16; Feb 96/16; Apr 96/16; Apr 97/16

**Microencapsulation**  
Tanis, Dave and Kathleen Dombrink, microencapsulation, Feb 83/8

**Microwave Chemistry**  
Emsley, John, cooking, Dec 93/6

**Mighty Thermite—A Solid Hit**  
Tinnesand, Michael, thermite,

## —M—

**Magic Sand**  
Robson, David, hydrophobic particles, Apr 94/8

**Magic Sand Winners**  
Black, Harvey, hydrophobic particles, Feb 95/14

**Magnesium, Steel, and Flint—A Striking Combination**  
Tinnesand, Michael, theory of kindling, Apr 00/10

**Make the Shoe Fit**  
Baxter, Roberta, basketball shoes, Feb 99/9

**Make Your Own Copper Verdigris**  
Activity, copper, Feb 03/7

**Making Ice Cream: Cool Chemistry**  
Baxter, Roberta, *Cover Story*, colloids, Dec 95/4

**Making the Grade**  
Meadows, Robin, *MysteryMatters*, forensics, Dec 89/10

**Making the World Safe for Blondes**  
Douglass, Anne, validation, Sept 02/14

**Manufacturing Memories**  
Graveson, Dan, computer chips, Feb 90/4

**Maple Syrup: Sweet Sap Boils**

Feb 02/14  
**Miracle Thaw—Can It Take the Heat?**  
Shaw, David, thermodynamics, Oct 97/4  
**Mirror Molecules**  
Kirshenbaum, Kenneth, *Cover Story*, isomers, Apr 89/4  
**Missing Warning, The**  
Young, Jay, *MysteryMatters*, combustion, Oct 85/12  
**Model Rockets—Chemistry for Lift-off**  
Rohrig, Brian, rocket fuels, Apr 01/13  
**Modern Science**  
Jensen, William, acid-base, Apr 83/14  
**Money Makers, The**  
Venere, Emil, *Cover Story*, currency, Feb 03/14  
**Mood Lipstick**  
D'Orso, Jennifer; Burnette, Diane, *Activities*, acid-base, Dec 85/12  
**More Than Blue**  
Kimbrough, Doris, *ChemSumer*, brain chemistry, Feb 05/8  
**Motion Detectors**  
Becker, Robert, motion detectors, Dec 05/7  
**Mouthwash: What's In It For You?**  
Baxter, Roberta, *Cover Story*, bacteria, Dec 96/6  
**Mt. Everest—Climbing in Thin Air**  
Rohrig, Brian, *Cover Story*, air, Feb 00/4  
**MUMAB: The Making of a Modern Mummy**  
Touchette, Nancy, *Cover Story*, mummies, Feb 96/4  
**Murder She Floats**  
Mentzner, Robert, *MysteryMatters*, density, Dec 02/17  
**Mustard Gas**  
Tinnesand, Michael, mustard gas, Apr 05/17  
**My lab partner accidentally heated a regular glass test tube over a Bunsen burner,**

and it cracked right away  
Becker, Robert, *Question From the Classroom*, glass, Apr 08/2  
**My parents are looking into buying a heat pump**  
Becker, Robert, *Question From the Classroom*, heat pump, Oct 06/2  
**My Research Career**  
Knopp, Jonathan, *Cover Story*, nitroglycerin, Oct 91/7  
**Mystery of the Poisoned Boy, The**  
Buchman, Dian Dincin, *MysteryMatters*, pesticides, Feb 94/9  
**Mystique of Musk, The**  
Arrigo, Joseph, perfumes, Apr 91/12

Graham, Tim, *MysteryMatters*, mercury poisoning, Dec 96/9  
**Nitrous Oxide: By No Means a Laughing Matter**  
Davenport, Derek, *Cover Story/Back Burner*, gases, Feb 86/17  
**No Cavities!**  
Viehland, Kim, tooth decay, Feb 90/16  
**Nobel Prize Winner Sherwood Rowland: A Conversation**  
Harwell, David, chlorofluorocarbons, Oct 03/29  
**Noisy Knuckles and Henry's Law**  
Kimbrough, Doris, Henry's Law, Dec 00/12  
**Nonsafety Glass**  
Young, Jay, *MysteryMatters*, polymers, Oct 87/10  
**Not So Simple Life of Filters, The**  
Tinnesand, Michael, filters, Feb 08/14  
**Notable Numbers**  
Lamb, Dorothy, *Puzzles*, important chemistry numbers, Apr 95/18  
**Nuclear Diagnosis**  
Atwood, Charles, nuclear, Dec 85/4  
**Nylon**  
Kydd, Sally, nylon, Dec 90/4

## —N—

**Nanomotors**  
Rosenthal, Anne, nanomotors, Apr 06/18  
**Nanotechnology-The World of the Super Small**  
Rosenthal, Anne, *Cover Story*, nanotechnology, Dec 02/9  
**NASCAR: Chemistry on the Fast Track**  
Rohrig, Brian, *Cover Story*, NASCAR, Feb 07/4  
**National Chemistry Week**  
Drummond, A. H., *Puzzles*, chemical magic, Oct 89/16  
**Natural Dyeing**  
Davenport, Derek, *Activities*, organic, Dec 86/12  
**Natural Dyes**  
Wood, Clair, *Cover Story*, organic, Dec 86/4  
**New Alchemy, The**  
McClure, Michael, *ChemHistory*, artificial elements, Oct 06/15  
**New Gold Rush, The**  
Smith, Jillyn, *Cover Story*, gold mining, Oct 89/4  
**Nicotine Patches**  
Robson, David; Olenick, Mary, smoking, Oct 92/15  
**Nightmare on White Street**

## —O—

**Ocean Bioluminescence**, Rosenthal, Anne M., bioluminescence, Dec 04/10  
**Oil Changes**  
Baugh, Mark, fat, Dec 89/7  
**Old News, New Paper**  
Borchardt, John, recycling, Apr 93/12  
**On Board With Epoxy**  
Thielk, David, epoxy-fiberglass combinations, Apr 00/4  
**Our chemistry teacher told us that science never proves anything**  
Becker, Robert, *Question From*

*the Classroom*, scientific proof, Oct 07/2  
**Ozone Molecule With a Split Personality**  
Kimbrough, Doris, ozone, Sept 01/7  
**Ozone Out of Bounds**  
Black, Harvey, pollution, Feb 98/13

## —P—

**Paintball! Chemistry Hits Its Mark**  
Rohrig, Brian, *Cover Story*, paintball, Apr 07/4  
**Paintmaking Adventures**  
Orna, Mary Virginia, light and paint, Dec 84/12  
**Peanut Brittle**  
Catelli, Elizabeth, sugar, Dec 91/4  
**Penicillin**  
Holzman, David, biochemistry, Apr 87/10  
**Pepper Power**  
Williams, Clark, capsaicin, Apr 95/10  
**Percy Julian: Rising Above Racism**  
Brownlee, Christen, Julian, Oct 07/13  
**Perfume**  
Linner-Luebe, Marilyn, perfume, Feb 92/8  
**Periodic Spiral**  
Scott, Dan, periodicity, Dec 90/9  
**Periodically Puzzling**  
Nelson, Bronwyn, *Puzzles*, periodicity, Dec 85/16  
**Permanent Waves**  
Baxter, Roberta, *Cover Story*, hair, Apr 93/8  
**PET Recycling**  
Plummer, Christine, recycling, Oct 94/7  
**PET Scan (See Positron Emission Tomography)**  
**pH and Hair Shampoo**  
Tanis, Dave and Kathleen Dombrink, *Cover Story*, acid-base, Apr 83/8

**Phantom Flame, The**  
Stuart, Kelly, poem, Oct 90/13  
**Plants Fight Back**  
Wood, Clair, insecticides, Apr 96/9  
**Poison Ivy**  
Witzel, Eric, poison ivy, Oct 90/4  
**Poison That Heals**  
Black, Harvey, botulism, Dec 94/7  
**Poisoned!**  
Graham, Tim, *ChemMystery*, chemistry of arsenic, Dec 05/17  
**Poisoned Milk**  
Plummer, Christine, *MysteryMatters*, acidosis, Dec 92/10  
**Polarized Light**  
Lamb, William, light, Apr 84/9  
**Polymer Properties**  
Scheinberg, Stephen, *Activities*, polymers, Apr 86/11  
**Polymers**  
Alper, Joseph, *Cover Story*, polymers, Apr 86/4  
**Polysaccharides**  
Cote, Gregory, polymers, Apr 86/12  
**Polywater**  
Zaugg, Harold, scientific method, Dec 87/10  
**Popcorn**  
Sibley, Lynn, *Cover Story*, snack food, Oct 84/10  
**Positron Emission Tomography (PET) Scan**  
Tracey, M. Elizabeth, addiction research, Feb 94/12  
**Price of Progress, The**  
Holzman, David, jeans, Dec 86/16  
**Project Yukon**  
Senkowsky, Sonya, *Cover Story*, water quality, Feb 04/10  
**Pseudoscience—Too Good To Be True?**  
Cardulla, Frank, *Cover Story*, pseudoscience, Feb 02/4  
**Puddling Moths**  
Angier, Natalie, *Cover Story*, sodium, Apr 96/6  
**Pulse oximetry**  
*ChemShorts*, pulse oximetry,

Feb 05/19  
**Pumphouse Incident, The**  
Young, Jay, *MysteryMatters*, gases, Feb 84/14  
**Pumping Oxygen**  
Siezen, Roland, *Cover Story*, gases, Feb 84/6  
**Putting a High Grade on Degradables**  
Black, Harvey, polymers, Apr 99/14  
**Putting the Chemistry into Magic Pens Activity**, magic pens, Oct 98/6

## —Q—

**Quest for a Clean Drink, The**  
Brownlee, Christen, *Cover Story*, water, Apr 08/4

## —R—

**Race for Iodine, The**  
Michalovic, Mark, *ChemHistory*, iodine, Dec 06/18  
**Radioactivity—It's a Natural**  
Rohrig, Brian, radioactivity, Apr 00/6  
**Radium Girls-Dialing Up Trouble, The**  
Curtis, Bryan, *MysteryMatters*, radioactivity, Oct 98/13  
**Reacting to Pictures**  
Helser, Terry, *Puzzles*, equations, Apr 91/16  
**Real Leather**  
Nagel, Miriam, *Cover Story*, leather, Apr 90/4  
**Real or Fake? The James Ossuary Case**  
Fruen, Lois, *ChemMystery*, carbon-14 dating, Feb 06/8  
**Rebreathers**  
Graham, Tim, rebreathers, Feb 08/11  
**Releasing the power of oxygen**  
*Activity*, oxygen, Dec 03/10  
**Retiring Old Tires**  
Jones, Donald; Herlocker, Helen, tires, Apr 07/11  
**Riddled with Puns**  
Gault, Ned, *Puzzles*, riddles,

Dec 91/16

**Risky Business**  
Gough, Laura and Michael, risk assessment, Dec 93/10

**Roach Busters**  
Thomas, Matt with Pam Jeffery, *Cover Story*, cockroaches, Feb 91/8

**Robert Bunsen ... More than a Burner Design**  
Davenport, Derek, *Back Burner*, profiles, Oct 84/14

**Rubric**  
Bowers, Dana, *Puzzles*, solutions, Feb 84/16

**Rudolf Diesel's Engine**  
Alper, Joseph, *Back Burner*, profiles, Dec 90/11

**S**

**Saint's Blood**  
Meadows, Robin, *MysteryMatters*, blood, Feb 93/12

**Salmonella Search, The**  
Holzman, David, *MysteryMatters*, medicine, Apr 87/13

**Salt**  
Smith, Trevor, substitutes, Dec 92/4

**Salt-Gradient Solar Ponds**  
Barnwell, George, solar energy, Dec 89/12

**Salting Roads-The Solution for Winter Driving**  
Kimbrough, Doris, chemistry of road salt, Feb 06/14

**Saving Arnold**  
McClure, Michael, *Cover Story/MysteryMatters*, forensics, Dec 88/4

**Say Cheese**  
Baxter, Roberta, *Cover Story*, curds, Feb 95/4

**Scanning Electron Microscopy Solves a Mystery!**  
Graham, Tim, *MysteryMatters*, electron microscopy, Dec 03/17

**Science of Slime, The**

Rohrig, Brian, *Cover Story*, viscosity, Dec 04/13

**SCUBA—The Chemistry of an Adventure**  
Belleman, Melissa, *Cover Story*, scuba diving, Feb 01/7

**Search for Martian Water, The**  
Simon, Hank, spectroscopy, Oct 02/12

**Searching for Patterns in the Clouds**  
Gille, John, infrared radiation, Sept 02/12

**Secrets of the Samurai Sword Revealed**  
Graham, Tim, metallurgy, Dec 05/9

**Seeds of Doubt**  
Goldfarb, Bruce, *Cover Story/MysteryMatters*, drug testing, Apr 95/4

**Serendipitous Chemistry**  
Rohrig, Brian, serendipitous, Oct 07/4

**Shining Right on Atmospheric Ozone**  
Levett, Piternel, ozone, Sept 02/10

**Shirley**  
Casey, Harry, smoking outcomes/profile, Feb 86/9

**Should food be irradiated?**  
Becker, Robert, *As A Matter of Fact*, food, Apr 99/16

**Shrimp Bandages**  
Gorss, Jason, *ChemShorts*, blood hemorrhaging, Oct 04/19

**Shrouded in Mystery**  
Tausta, Joseph, forensics, Feb 89/8

**Sick Buildings—Air Pollution Comes Home**  
Laliberte, Michelle, home pollution, Oct 06/12

**Silent Killer, The**  
Graham, Tim, carbon monoxide, Feb 05/12

**Silly Putty**  
Marsella, Gail, polymers, Apr 86/15

**Silver Lightning**  
Shaw, David, redox, Dec 96/4

**\$6,000,000 Man**

Marangoni, Gerry, human chemicals, Feb 88/20

**Sizing Up Paper**  
Ruth, Carolyn, cellulose, Apr 98/10

**Skin Deep**  
Smith, Wesley, *Cover Story*, physiology, Dec 87/4

**Skunk Non-scents**  
Touchette, Nancy, skunks, Oct 96/7

**Slide Rules Rule!**  
Tinnesand, Michael, slide rules, Apr 04/4

**Smart Windows, An Open and Shut Case**  
Rohrig, Brian, liquid crystals, Oct 99/9

**Smell of Danger, The**  
Goldfarb, Bruce, odorants, Oct 88/9

**Smoking**  
Holzman, David, smoking, Feb 86/4

**Smuggling Bear Galls**  
Meadows, Robin, *Cover Story/MysteryMatters*, gall bladders, Dec 94/4

**Sneeze and Wheeze**  
Baxter, Roberta, asthma, Apr 06/7

**Sniffing Landmines**  
Vos, Sarah, landmines, Apr 08/7

**Soap**  
Wood, Clair, *Cover Story*, organic, Feb 85/4

**Soapuzzle**  
Orna, Mary Virginia, *Puzzles*, Feb 85/16

**Soil Chemistry—Sifting Through the Past**  
Fruen, Lois, *MysteryMatters*, soil chemistry, Apr 01/6

**Solar Chemistry**  
Scott, Dan, solar energy, Feb 91/4

**Solid Facts About Trans Fats, The**  
Kimbrough, Doris, trans fats, Dec 07/14

**Something's Rotten**  
Meadows, Robin, forensics, Apr 89/14

**Spectroscopy—Sensing the Unseen**

Miller, Steve, spectroscopy, Sept 01/4  
**Spider Silk—Spinning a Strong Thread**  
Miller, Steve, spider silk, Feb 01/10  
**Speed**  
Dombrink, Kathleen, *Software*, kinetic energy, Oct 83/16  
**Spoiled Produce—The Long and the Short of It**  
Cardulla, Frank, *ChemSumer*, ethylene, Apr 99/7  
**Sports Drinks: Don't Sweat the Small Stuff**  
Graham, Tim, *ChemSumer*, sports drinks, Feb 99/11  
**Starborn—The Origin of the Elements**  
Finkbeiner, Ann, *Cover Story*, astrochemistry, Oct 84/6  
**Statue of Liberty**  
Burroughs, Tom, *Cover Story*, redox, Apr 85/8  
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## Questions From the Classroom

Are there some things liquid nitrogen won't freeze? Feb 04/2  
Do ducks get cold feet?, Dec 01/2  
Do scientists always follow "the

scientific method" when they do experiments? Apr 02/2  
"Eureka!" Where does that word come from and what does it mean? Feb 01/2  
How are new pennies different from old pennies? Feb 03/2  
How do CD players work?  
Dec 02/2  
How do lasers work, and what is so special about laser light?  
Apr 03/2  
How does a candle work?  
Feb 05/2  
I saw a video on the Internet in which this guy drops a bunch of Mentos candies into a 2-L bottle of Diet Coke, Feb 07/2  
I was surfing the web and found that there is a new hydrogen beer. Is it true? Feb 02/2  
If I buy a more expensive high-octane gasoline, will my car run better? Dec 00/2  
Is it true that there are no plans to ban DHMO, one of the most hazardous substances on the planet? Oct 02/2  
Is paying extra for nitrogen gas in car tires worth it? Feb 06/2  
Is there lead in some imported candies? Dec 05/2  
Is water the best fire extinguisher in the kitchen? Apr 01/2  
Lately, in chemistry class, we have been learning all about polymers, Apr 07/2  
My lab partner accidentally heated a regular glass test tube over a Bunsen burner, and it cracked right away, Apr 08/2  
My mother's baby teeth were used in a research study. What was that all about? Dec 03/2  
My parents are looking into buying a heat pump,  
Oct 06/2  
Our chemistry teacher told us that science never proves anything, Oct 07/2  
Should soda vending machines in schools be banned? Oct 04/4  
We learned in class that all objects have mass—even a helium balloon. So why then does a helium balloon rise?

Dec 06/2  
What is the most deadly poison in the world? Dec 04/2  
What is uranium enrichment?  
Apr 05/2  
What makes a Superball so super? Oct 05/4  
What was Benjamin Franklin's kite experiment all about?  
Apr 04/2  
Why do oil and water not mix?  
Apr 06/2  
Why does shaking a can of soda make it explode? Feb 08/2  
Why does shaking a can of soda make the pressure increase?  
Dec 07/2  
Who invented the ballpoint pen?  
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Would a vacuum cleaner still work inside a vacuum? Oct 03/4  
You Are What You Eat, Oct 00/2

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Find Out Why, Apr 00/2  
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