|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| http://images.magnetmail.net/images/template/acs/gold.gif In This Edition  |  | | --- | | [New materials remove CO2 from smokestacks, tailpipes and even the air](#1)  [Older, cheaper vacuum cleaners release more bacteria and dust](#ARTICLE_2)    [Dried licorice root fights the bacteria that cause tooth decay and gum disease](#3)  [“Magnetic tongue” ready to help produce tastier processed foods](#4)  [Star Trek Tricorder revisited: Toward a genre of medical scanners](#5) |  |  | | --- | | [**Journalists’ Resources:**](#Resources)  [News media registration for ACS’ 243rd National Meeting & Exposition in San Diego](#Registration) [Press releases, briefings and more from ACS’ 242nd National Meeting Inside Science News Service](#Resources)  [Must-reads from C&EN: Cultured Meat](#mustread)  [ACS Pressroom Blog](#pressroomblog)   [*Bytesize Science* Blog](#bytesizeblog)  [ACS Satellite Pressroom: Daily news blasts on *Twitter*](#twitter)  [C&EN on Twitter](#CENTwitter)  [ACS Press Releases](#releases) |  |  | | --- | | [**ACS Videos:**](#Videos)[Spellbound: A video series on how kids became scientists](#Spellbound)  [Prized Science video series](#Dance)  [First Living, Dancing Periodic Table of the Elements](#Mars)  [A Day Without Chemistry](#daywithoutchemistry)   [The Chemistry of Sourdough Bread](#sourdough)  [The Chemistry of Fireworks](#fireworks)  [The Chemistry of Grilling and Barbecuing](#barbecue) |  |  | | --- | | [**ACS Podcasts:**](#podcasts)     [Bytesize Science: A podcast for young listeners](#globalchallenges)  [Global Challenges/Chemistry Solutions](#Bytesizescience)    [Science Elements: From the PressPac](#Scienceelements)   [*SciFinder®* Podcasts](#scifinder)  [**And Don't Miss:**](#dontmiss)  [Chemistry Glossary](#glossary)  [Chemical Abstracts Service (CAS) Web site on everyday chemicals](#CAS)  [Colors of Chemistry Photo Contest Seeks Entries](#colors)  [Science Connections from CAS](#CAS2) |   [PressPac Archives](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011435&m=1692384&u=ACS&j=8467261&s=http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_PRESSPACS&node_id=223&use_sec=false&sec_url_var=region1&__uuid=a0c923e3-c385-4d96-bdc8-eadaa07eb02f) | **ACS NEWS SERVICE Weekly Press Package - January 4, 2012   ALL CONTENT IS FOR IMMEDIATE RELEASE  Please credit the individual journal or the American Chemical Society as the source for this information.**  Here is the latest American Chemical Society (ACS) Weekly PressPac from the Office of Public Affairs. It has news from ACS’ 43 peer-reviewed journals and Chemical & Engineering News.  Science Inquiries: Michael Woods, editor [m\_woods@acs.org](mailto:m_woods@acs.org) 202-872-6293  General Inquiries: Michael Bernstein [m\_bernstein@acs.org](mailto:m_bernstein@acs.org)  202-872-6042  ARTICLE #1 **FOR IMMEDIATE RELEASE**  **New materials remove CO2 from smokestacks, tailpipes and even the air** Journal of the American Chemical Society   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/010412SmokestackIstock_thumb.jpg New materials remove CO2 from smokestacks, tailpipes and even the air Credit: iStock |   Scientists are reporting discovery of an improved way to remove carbon dioxide — the major greenhouse gas that contributes to global warming — from smokestacks and other sources, including the atmosphere. Their report on the process, which achieves some of the highest carbon dioxide removal capacity ever reported for real-world conditions where the air contains moisture, appears in the Journal of the American Chemical Society.  Alain Goeppert, G. K. Surya Prakash, chemistry Nobel Laureate George A. Olah and colleagues explain that controlling emissions of carbon dioxide (CO2) is one of the biggest challenges facing humanity in the 21st century. They point out that existing methods for removing carbon dioxide from smokestacks and other sources, including the atmosphere, are energy intensive, don't work well and have other drawbacks. In an effort to overcome such obstacles, the group turned to solid materials based on polyethylenimine, a readily available and inexpensive polymeric material.  Their tests showed that these inexpensive materials achieved some of the highest carbon dioxide removal rates ever reported for humid air, under conditions that stymie other related materials. After capturing carbon dioxide, the materials give it up easily so that the CO2 can be used in making other substances, or permanently isolated from the environment. The capture material then can be recycled and reused many times over without losing efficiency. The researchers suggest the materials may be useful on submarines, in smokestacks or out in the open atmosphere, where they could clean up carbon dioxide pollution that comes from small point sources like cars or home heaters, representing about half of the total CO2 emissions related to human activity.  The authors acknowledge the [Loker Hydrocarbon Research Institute](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011436&m=1692384&u=ACS&j=8467261&s=http://www.usc.edu/dept/chemistry/loker/) and the [U.S. Department of Energy](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011437&m=1692384&u=ACS&j=8467261&s=http://energy.gov/).     |  | | --- | | http://images.magnetmail.net/images/clients/ACS/010412JACS_thumb.jpg [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011438&m=1692384&u=ACS&j=8467261&s=http://web.1.c2.audiovideoweb.com/1c2web3536/010412jacs.jpg) for high-resolution image |   ARTICLE #1 **FOR IMMEDIATE RELEASE** "Carbon Dioxide Capture from the Air Using a Polyamine Based Regenerable Solid Adsorbent"  [DOWNLOAD FULL TEXT ARTICLE](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011439&m=1692384&u=ACS&j=8467261&s=http://pubs.acs.org/stoken/presspac/presspac/full/10.1021/ja2100005)   CONTACT: G. K. Surya Prakash, Ph.D. University of Southern California Los Angeles, Calif. 90089 Phone: 213-740-5984 Fax: 213-740-5087 Email: [gprakash@usc.edu](mailto:gprakash@usc.edu)  or  Alain Goeppert, Ph.D. University of Southern California Los Angeles, Calif. 90089 Phone: 213-740-5978 Email: [goeppert@usc.edu](mailto:goeppert@usc.edu)  or  George A. Olah, Ph.D. Loker Hydrocarbon Research Institute University of Southern California Los Angeles, Calif. 90089 Phone: 213-740-5976 Email: [olah@usc.edu](mailto:olah@usc.edu)  [To Top](#top)  http://images.magnetmail.net/images/clients/ACS/goldline.gif  ARTICLE #2 **FOR IMMEDIATE RELEASE**  **Older, cheaper vacuum cleaners release more bacteria and dust**Environmental Science & Technology   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/010412VacuumIstock_thumb.jpg Older, cheaper vacuum cleaners release more bacteria and dust Credit: iStock |   Some vacuum cleaners — those basic tools for maintaining a clean indoor environment in homes and offices — actually contribute to indoor air pollution by releasing into the air bacteria and dust that can spread infections and trigger allergies, researchers report in a new study. It appears in ACS’ journal Environmental Science & Technology.  Lidia Morawska and colleagues explain that previous studies showed that vacuum cleaners can increase levels of very small dust particles and bacteria in indoor spaces, where people spend about 90 percent of their time. In an effort to provide more information about emission rates of bacteria and small dust particles, the scientists tested 21 vacuum cleaners sold in Australia. The vacuums came from 11 manufacturers, included those marketed for household and commercial use, ranged in age from six months to 22 years and cost from less than $100 to almost $800. They looked at the effects that age, brand and other factors had on the amount of small particles and bacteria released into air.  All of the vacuums released some fine dust and bacteria into the air. Surprisingly, vacuums with so-called High-Efficiency Particulate Air (HEPA) filters in some cases released only slightly lower levels of dust and bacteria. Newer and more expensive vacuum cleaners were generally less polluting than older or less expensive models.   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/010412EST_thumb.jpg [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011440&m=1692384&u=ACS&j=8467261&s=http://web.1.c2.audiovideoweb.com/1c2web3536/010412est.jpg) for high-resolution image |   ARTICLE #2 **FOR IMMEDIATE RELEASE** “Vacuum Cleaner Emissions as a Source of Indoor Exposure to Airborne Particles and Bacteria”  [DOWNLOAD FULL TEXT ARTICLE](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011441&m=1692384&u=ACS&j=8467261&s=http://pubs.acs.org/stoken/presspac/presspac/full/10.1021/es202946w)  CONTACT: Lidia Morawska, Ph.D. Queensland University of Technology Brisbane, Australia Phone: +617-3138-2616 Email: [l.morawska@qut.edu.au](mailto:l.morawska@qut.edu.au)  [To Top](#top)  http://images.magnetmail.net/images/clients/ACS/goldline.gif  ARTICLE #3 **FOR IMMEDIATE RELEASE  Dried licorice root fights the bacteria that cause tooth decay and gum disease**  Journal of Natural Products   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/010412LicoriceIstock_thumb.jpg Dried licorice root fights the bacteria that cause tooth decay and gum disease Credit: iStock |   Scientists are reporting identification of two substances in licorice — used extensively in Chinese traditional medicine — that kill the major bacteria responsible for tooth decay and gum disease, the leading causes of tooth loss in children and adults. In a study in ACS’ Journal of Natural Products, they say that these substances could have a role in treating and preventing tooth decay and gum disease.   Stefan Gafner and colleagues explain that the dried root of the licorice plant is a common treatment in Chinese traditional medicine, especially as a way to enhance the activity of other herbal ingredients or as a flavoring. Despite the popularity of licorice candy in the U.S., licorice root has been replaced in domestic candy with anise oil, which has a similar flavor. Traditional medical practitioners use dried licorice root to treat various ailments, such as respiratory and digestive problems, but few modern scientific studies address whether licorice really works. (Consumers should check with their health care provider before taking licorice root because it can have undesirable effects and interactions with prescription drugs.) To test whether the sweet root could combat the bacteria that cause gum disease and cavities, the researchers took a closer look at various substances in licorice.   They found that two of the licorice compounds, licoricidin and licorisoflavan A, were the most effective antibacterial substances. These substances killed two of the major bacteria responsible for dental cavities and two of the bacteria that promote gum disease. One of the compounds — licoricidin — also killed a third gum disease bacterium. The researchers say that these substances could treat or even prevent oral infections.   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/010412JNP_thumb.jpg [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011442&m=1692384&u=ACS&j=8467261&s=http://web.1.c2.audiovideoweb.com/1c2web3536/010412JNP.jpg) for high-resolution image |   ARTICLE #3 **FOR IMMEDIATE RELEASE** “Isoflavonoids and Coumarins from Glycyrrhiza uralensis: Antibacterial Activity against Oral Pathogens and Conversion of Isoflavans into Isoflavan-Quinones during Purification”  [DOWNLOAD FULL TEXT ARTICLE](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011443&m=1692384&u=ACS&j=8467261&s=http://pubs.acs.org/stoken/presspac/presspac/full/10.1021/np2004775)   CONTACT: Stefan Gafner, Ph.D.  Tom’s of Maine  Kennebunk, Maine 04043 Phone: 207-467-2227  Fax: 207-985-2196  Email: [stefang@tomsofmaine.com](mailto:stefang@tomsofmaine.com)  [To Top](#top)  http://images.magnetmail.net/images/clients/ACS/goldline.gif    ARTICLE #4 **FOR IMMEDIATE RELEASE: A PressPac Instant Replay\*  “Magnetic tongue” ready to help produce tastier processed foods** Journal of Agricultural and Food Chemistry   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/TomatoIstock_thumb.jpg “Magnetic tongue” ready to help produce tastier processed foods Credit: iStock |   The "electronic nose," which detects odors, has a companion among emerging futuristic "e-sensing" devices intended to replace abilities that once were strictly human-and-animal-only. It is a "magnetic tongue" — a method used to "taste" food and identify ingredients that people describe as sweet, bitter, sour, etc. A report on use of the method to taste canned tomatoes appears in ACS' Journal of Agricultural and Food Chemistry. Antonio Randazzo, Anders Malmendal, Ettore Novellino and colleagues explain that sensing the odor and flavor of food is a very complex process. It depends not only on the combination of ingredients in the food, but also on the taster’s emotional state. Trained taste testers eliminate some of the variation, but food processors need more objective ways to measure the sensory descriptor of their products. That’s where electronic sensing technologies, like E-noses, come into play. However, current instruments can only analyze certain food components and require very specific sample preparation. To overcome these shortcomings, Randazzo and Malmendal's team turned to nuclear magnetic resonance spectroscopy (NMR) to test its abilities as "a magnetic tongue."  The researchers analyzed 18 canned tomato products from various markets with NMR and found that the instrument could estimate most of the tastes assessed by the human taste testers. But the NMR instrument went even farther. By determining the chemical composition, it showed which compound is related to which sensory descriptor. The researchers say that the "magnetic tongue" has good potential as a rapid, sensitive and relatively inexpensive approach for food processing companies to use.   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/010412Ag_thumb.jpg [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011444&m=1692384&u=ACS&j=8467261&s=http://web.1.c2.audiovideoweb.com/1c2web3536/010412Ag.jpg) for high-resolution image |   ARTICLE #4 **FOR IMMEDIATE RELEASE** “NMR Spectrometers as ‘Magnetic Tongues’: Prediction of Sensory Descriptors in Canned Tomatoes”  [DOWNLOAD FULL TEXT ARTICLE](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011445&m=1692384&u=ACS&j=8467261&s=http://pubs.acs.org/stoken/presspac/presspac/full/10.1021/jf203803q)  CONTACT: Antonio Randazzo, Ph.D. Universitá degli Stidu di Napoli “Federico II” Napoli, Italy Phone: +39-081-678514 Fax: +39-081-678552 Email: [antonio.randazzo@unina.it](mailto:antonio.randazzo@unina.it)  or  Anders Malmendal, Ph.D. University of Copenhagen Copenhagen, Denmark Phone: +45-3532-7753 Fax: +45-3535-6310 Email: [malmendal@sund.ku.dk](mailto:malmendal@sund.ku.dk)   **\* A previous PressPac item that you may have missed**  [To Top](#top)  http://images.magnetmail.net/images/clients/ACS/goldline.gif  ARTICLE #5 **FOR IMMEDIATE RELEASE**  **Star Trek Tricorder revisited: Toward a genre of medical scanners** Chemical & Engineering News   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/010412CEN_thumb.jpg [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011446&m=1692384&u=ACS&j=8467261&s=http://web.1.c2.audiovideoweb.com/1c2web3536/010412CEN.jpg) for high-resolution image. |   A hand-held scanner, reminiscent of the fictional Star Trek medical Tricorder, images blood vessels through the skin and projects a map onto the skin showing nurses exactly where to insert a needle. A pocket-sized device checks blood sugar levels through the skin of people with diabetes — no pinprick or blood sample needed. Those innovations are among a new genre of medical imaging technology that's giving doctors and scientists noninvasive views into the body to diagnose and study diseases. A report on the topic appears in the current edition of Chemical & Engineering News (C&EN), the weekly newsmagazine of the American Chemical Society, the world’s largest scientific society.  In the article, C&EN Contributing Editor Aaron Alexander Rowe focuses on new optical techniques that use laser beams or so-called near-infrared light to peer painlessly below the skin and through muscle and bone to see body structures. Near-infrared light, just beyond the range visible to the human eye, penetrates several inches into the human body. Two devices described in the article project a near-infrared beam into the skull. The light passes through brain tissue and blood vessels, and then scatters back out, where detectors analyze it in ways that promise to reveal whether patients are bleeding from a stroke or have other disorders.  The article explains that some of the new light-based medical diagnostic tools — the blood vessel mapper, for instance — already are in use in hospitals and clinics. Others are in various stages of pre-clinical development, including devices intended to spot skin cancer, monitor how breast cancer is responding to treatments and produce 3-D images of blockages in blood vessels. A video accompanying the article appears at: [http://youtu.be/92yznrQEVYM](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011447&m=1692384&u=ACS&j=8467261&s=http://youtu.be/92yznrQEVYM)  ARTICLE #5 **FOR IMMEDIATE RELEASE** “Lights and Lasers Invade the Clinic” This story is available at:  [http://cen.acs.org/articles/90/i1/Lights-Lasers-Invade-Clinic.html](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011448&m=1692384&u=ACS&j=8467261&s=http://cen.acs.org/articles/90/i1/Lights-Lasers-Invade-Clinic.html)    [To Top](#top)  http://images.magnetmail.net/images/clients/ACS/goldline.gif    **Journalists’ Resources**   **News media registration for ACS’ 243rd National Meeting & Exposition in San Diego** News media [registration](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011449&m=1692384&u=ACS&j=8467261&s=https://www.xpressreg.net/register/acsa032/media/start.asp) is now open for the American Chemical Society’s (ACS) 243rd National Meeting & Exposition in San Diego, March 25-29, 2012. The event will include more than 11,500 reports on new discoveries in medicine and health, food and nutrition, energy, the environment and other fields where chemistry plays a central role. One of the largest scientific conferences of 2012, the meeting will take place at the San Diego Convention Center and area hotels. To view full news release about meeting registration, click [here](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011450&m=1692384&u=ACS&j=8467261&s=http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_ARTICLEMAIN&node_id=222&content_id=CNBP_028895&use_sec=true&sec_url_var=region1&__uuid=077ccb29-4a64-4924-98b7-ed219e050a6d).   **Press releases, briefings, and more from ACS’ 242nd National Meeting** [www.eurekalert.org/acsmeet.php](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011451&m=1692384&u=ACS&j=8467261&s=http://www.eurekalert.org/acsmeet.php)  [http://www.ustream.tv/channel/acslive](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011452&m=1692384&u=ACS&j=8467261&s=http://www.ustream.tv/channel/acslive%20) **Inside Science News Service** For thoroughly enjoyable multimedia coverage of the science behind the news — a valuable resource for journalists and news media organizations everywhere. [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011453&m=1692384&u=ACS&j=8467261&s=http://www.insidescience.org/) to visit the Inside Science News website. **Must-reads from C&EN: Cultured Meat** No. Not burgers, chicken nuggets and sausage with a taste for opera, the symphony and ballet. Instead, think meat harvested from animal muscle cells grown in tissue culture vats as a healthier and more environmental friendly alternative to traditional livestock. For a glimpse at what’s ahead in the next few years, contact Michael Bernstein at [m\_bernstein@acs.org](mailto:m_bernstein@acs.org).  **ACS Pressroom Blog** The ACS Office of Public Affairs' [pressroom blog](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011454&m=1692384&u=ACS&j=8467261&s=http://www.acspressblog.com) highlights research from ACS’ 43 peer-reviewed journals and National Meetings.  **Bytesize Science Blog**  Educators and kids, put on your thinking caps: The American Chemical Society has [a blog for Bytesize Science](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011455&m=1692384&u=ACS&j=8467261&s=http://www.bytesizescience.com), a science podcast for kids of all ages.  **ACS Satellite Pressroom: Daily news blasts on Twitter** The satellite press room has become one of the most popular science news sites on Twitter. To get our news blasts and updates, create a free account at [https://twitter.com/signup](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011456&m=1692384&u=ACS&j=8467261&s=https://twitter.com/signup). Then visit [http://twitter.com/ACSpressroom](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011457&m=1692384&u=ACS&j=8467261&s=http://twitter.com/ACSpressroom) and click the ‘join’ button beneath the press room logo.   **C&EN on Twitter** Follow @cenmag <[http://twitter.com/cenmag](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011458&m=1692384&u=ACS&j=8467261&s=http://twitter.com/cenmag)> for the latest news in chemistry and dispatches from our blog, C&ENtral Science <[http://centralscience.org](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011459&m=1692384&u=ACS&j=8467261&s=http://centralscience.org)>.**ACS Press Releases**  [Press releases](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011460&m=1692384&u=ACS&j=8467261&s=http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_NEWSRELEASES&node_id=222&use_sec=false&sec_url_var=region1&__uuid=50b5ab93-801d-4d0d-868f-b9507ff9d709) on a variety of chemistry-related topics.  [To Top](#top)  http://images.magnetmail.net/images/clients/acs/goldline.gif  **ACS Videos**  The American Chemical Society encourages news organizations, museums, educational organizations, and other web sites to embed links to these videos.  **Spellbound: How Kids Became Scientists**   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/Spellbound3.jpg |   The road to a Nobel Prize began for one scientist in elementary school when his father placed a sign on his bedroom door proclaiming him to be a “doctor.” This is just one of the many experiences that helped launch the careers of scientists from diverse backgrounds who are featured in a new ACS video series called [Spellbound: How Kids Became Scientists](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011462&m=1692384&u=ACS&j=8467261&s=http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_ARTICLEMAIN&node_id=1355&content_id=CNBP_028033&use_sec=true&sec_url_var=region1&__uuid=e8e6ee76-0abe-4e78-84c4-3717c995c65e).  **Prized Science video series**   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/PrizedScienceCraiksmall.jpg |   Prized Science: How the Science Behind ACS Awards Impacts Your Life video series is new for 2011! In the first episode, see how Ahmed Zewail, Ph.D., developed a technology that's paving the way for new medicines, new fuels and new materials that will give people longer, healthier, happier lives. Zewail is the winner of the 2011 Priestley Medal. The second episode features the work of David Craik, Ph.D., who made advances toward new drugs for treating health problems that affect millions of people around the world, including antibiotic-resistant bacteria and AIDS. Craik is the winner of the ACS 2011 Ralph F. Hirschmann Award in Peptide Chemistry, sponsored by Merck Research Laboratories. More episodes will appear later in the year. The series is available at the [Prized Science](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011463&m=1692384&u=ACS&j=8467261&s=http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_ARTICLEMAIN&node_id=446&content_id=CTD1_018821&use_sec=true&sec_url_var=region1&__uuid=594bce97-0b05-4df7-b759-1a0f9156c5d8) website and on [DVD](mailto:m_bernstein@acs.org).  **First Living, Dancing Periodic Table of the Elements**   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/Chemists.jpg |   That famous chart displaying the chemical elements that make up everything on Earth — a fixture on the walls of classrooms and labs — literally comes alive in this new video from the American Chemical Society (ACS). [Chemists Can Dance!](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011464&m=1692384&u=ACS&j=8467261&s=http://bytesizescience.com/index.cfm/2011/3/29/The-Chemistry-Dance) features scores of chemists wearing symbols representing the elements, kicking up their heels to the tune of an original rap song. It's all part of ACS's celebration of the International Year of Chemistry. Check out the fun and share the link.  **A Day Without Chemistry**  Imagine a day without cars, electric lights, TV, telephones, safe food, and water, medicine, clothing, your house, and thousands of other familiar objects that make up modern society. Do it, and you are imagining a day in a world without chemistry. ACS explores that thought-provoking premise in a new high-definition video released as part of the celebration of the International Year of Chemistry. [A Day Without Chemistry](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011465&m=1692384&u=ACS&j=8467261&s=http://www.youtube.com/watch?v=AbfW_CMMe48) follows a person who sees more and more everyday necessities and conveniences disappear before his widening eyes. [The Chemistry of Sourdough Bread](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011466&m=1692384&u=ACS&j=8467261&s=http://www.bytesizescience.com/index.cfm/2010/9/27/Chemistry-of-Sourdough)  [The Chemistry of Fireworks](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011467&m=1692384&u=ACS&j=8467261&s=http://www.bytesizescience.com/index.cfm/2010/6/25/Bytesize-Science-Presents-The-Chemistry-of-Fireworks)  [The Chemistry of Grilling and Barbecuing](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011468&m=1692384&u=ACS&j=8467261&s=http://www.bytesizescience.com/index.cfm/2010/6/15/Chemistry-of-Barbeque)  [To Top](#top)  http://images.magnetmail.net/images/clients/ACS/goldline.gif  **ACS Podcasts**   |  |  | | --- | --- | | **Bytesize Science, a podcast for young listeners**  Bytesize Science is a science podcast for kids of all ages that entertains and educates, with new high-definition video podcasts and some episodes in Spanish. [Subscribe to Bytesize Science using iTunes](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011469&m=1692384&u=ACS&j=8467261&s=http://phobos.apple.com/WebObjects/MZStore.woa/wa/viewPodcast?id=266670954). No iTunes? No problem. [Listen to the latest episodes of Bytesize Science](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011470&m=1692384&u=ACS&j=8467261&s=http://feeds.feedburner.com/BytesizeScience) in your web browser. |  | | **Global Challenges/Chemistry Solutions**  This special series of ACS podcasts focuses on some of the 21st Century’s most daunting challenges, and how chemists and other scientists are finding solutions. [Subscribe at iTunes](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011471&m=1692384&u=ACS&j=8467261&s=http://itunes.apple.com/WebObjects/MZStore.woa/wa/viewPodcast?id=283627508) or listen and access other resources at the ACS web site [www.acs.org/GlobalChallenges](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011472&m=1692384&u=ACS&j=8467261&s=http://www.acs.org/GlobalChallenges). | http://images.magnetmail.net/images/clients/ACS/GlobalChallenges(1).jpg | | **Science Elements: ACS science news podcast**  Science Elements is a podcast of PressPac contents that makes cutting-edge scientific discoveries from ACS journals available to a broader public audience. [Subscribe to Science Elements using iTunes](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011473&m=1692384&u=ACS&j=8467261&s=http://itunes.apple.com/WebObjects/MZStore.woa/wa/viewPodcast?id=259674986). [Listen to the latest episodes of Science Elements in your web browser](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011474&m=1692384&u=ACS&j=8467261&s=http://feeds2.feedburner.com/acs/scienceelements). Science Elements is on Facebook — [check out the latest updates and information](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011475&m=1692384&u=ACS&j=8467261&s=http://www.facebook.com/pages/Science-Elements/135606971011). |  | | **SciFinder® Podcasts** Interested in healthful plant phytochemicals, nanotechnology, or green chemistry? Check out [the SciFinder series of podcasts](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011476&m=1692384&u=ACS&j=8467261&s=http://www.videogateway.tv/cas/index.php?SectionID=5), which explore a vast array of current interest topics and new discoveries in the 21st century. The SciFinder podcasts are available in English, Chinese, Japanese, and Portuguese. | http://images.magnetmail.net/images/clients/ACS/SciFinder_PodcastLogo.gif | | **And Don’t Miss. . .**  **[General Chemistry Glossary](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011477&m=1692384&u=ACS&j=8467261&s=http://antoine.frostburg.edu/chem/senese/101/glossary.shtml)** Simple definitions and explanations of chemistry terms. |  | | **Chemical Abstracts Service (CAS) Web site on everyday chemicals** Whether you want to learn more about caffeine, benzoyl peroxide (acne treatment), sodium chloride (table salt), or some other familiar chemical, [CAS Common Chemistry](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011478&m=1692384&u=ACS&j=8467261&s=http://www.commonchemistry.org/) can help. The new Web site provides non-chemists and others with useful information about everyday chemicals by searching either a chemical name or a corresponding CAS Registry Number. The site includes about 7,800 chemicals of general interest as well as all 118 elements from the Periodic Table, providing alternative names, molecular structures, a Wikipedia link, and other information. | http://images.magnetmail.net/images/clients/ACS/CAS.bmp | | **Colors of Chemistry Photo Contest Seeks Entries** Each year in the Colors of Chemistry calendar, CAS highlights remarkable chemistry from the CAS databases with exceptional photography from around the world. This year, they want to see your great photos in the Colors of Chemistry Photo Contest. Each month features a new theme for photographers to explore while on vacation, relaxing at home, or at work in the lab. For more information, visit the Colors of Chemistry website at [colorsofchemistry.org](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011479&m=1692384&u=ACS&j=8467261&s=http://colorsofchemistry.org). |  | | **Science Connections from CAS** [CAS - Science Connections](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011480&m=1692384&u=ACS&j=8467261&s=http://www.cas.org/newsevents/connections/index.html) is a series of articles that showcases the value of CAS databases in light of important general-interest science and technology news. Topics range from fruit flies to Nobel Prize winners, with the CAS - Science Connections series pointing to [CAS databases](http://www.mmsend88.com/link.cfm?r=800557068&sid=17011481&m=1692384&u=ACS&j=8467261&s=http://www.cas.org/expertise/cascontent/index.html) for a more complete understanding of the latest news. |  |   [To Top](#top)  http://images.magnetmail.net/images/clients/ACS/goldline.gif      The American Chemical Society is a nonprofit organization chartered by the U.S. Congress. With more than 163,000 members, ACS is the world’s largest scientific society and a global leader in providing access to chemistry-related research through its multiple databases, peer-reviewed journals and scientific conferences. Its main offices are in Washington, D.C., and Columbus, Ohio.  PressPac information is intended for your personal use in news gathering and reporting and should not be distributed to others. Anyone using advance PressPac information for stocks or securities dealing may be guilty of insider trading under the federal Securities Exchange Act of 1934. |