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| http://images.magnetmail.net/images/template/acs/gold.gif In This Edition  |  | | --- | | [Advice for bag-in-box wine drinkers: Keep it cool](#1)  [Plastics used in some medical devices break down in a previously unrecognized way](#ARTICLE_2)  [First synthesis of gold nanoparticles inside human hair for dyeing and much more](#3)  [Speed limits on cargo ships could reduce their pollutants by more than half](#4)  [American Chemical Society Climate Science Toolkit: Fostering an understanding of climate science](#5) |  |  | | --- | | [**Journalists’ Resources:**](#Resources)  [About the Weekly PressPac](#About)  [Press releases, briefings and more from ACS’ 244th National Meeting](#registration)[Inside Science News Service](#InsideScience)  [C&EN Video Spotlight: Panda Power](#VideoSpotlight)  [Must-Read from C&EN: The Perfect Holiday Gifts](#mustread)  [ACS Pressroom Blog](#pressroomblog)   [Bytesize ScienceBlog](#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)  [The Periodic Table Table Featuring Theo Gray](#Mars)  [Healing the voice: Synthetic vocal cords](#daywithoutchemistry)  [The Chemistry of Beer](#Beer)  [The Chemistry of Cheese](#Cheese)  [Without a scratch: Self-Healing Materials](#Scratch) |  |  | | --- | | [**ACS Podcasts:**](#podcasts)     [Bytesize Science: A podcast for young listeners](#globalchallenges)  [Global Challenges/Chemistry Solutions](#Bytesizescience)    [Science Elements: From the PressPac](#Scienceelements) |  |  | | --- | | [**And Don't Miss:**](#dontmiss)  [Chemistry Glossary](#glossary) |   [PressPac Archives](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710500&m=2396995&u=ACS&j=12267563&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 - December 5, 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’ more than 40 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  Follow us: [http://images.magnetmail.net/images/clients/ACS/Twitter1(1).png](http://www.mmsend88.com/link.cfm?r=800557068&sid=21712268&m=2396995&u=ACS&j=12267563&s=https://twitter.com/ACSpressroom)  [http://images.magnetmail.net/images/clients/ACS/Facebook.jpg](http://www.mmsend88.com/link.cfm?r=800557068&sid=21712269&m=2396995&u=ACS&j=12267563&s=https://www.facebook.com/pages/American-Chemical-Society-Press-Room/130342583687829)  ARTICLE #1 **FOR IMMEDIATE RELEASE**  **Advice for bag-in-box wine drinkers: Keep it cool** Journal of Agricultural and Food Chemistry   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/121512Wine_thumb.jpg Advice for bag-in-box wine drinkers: Keep it cool. Credit: iStockphoto/Thinkstock |   Bag-in-box wines are more likely than their bottled counterparts to develop unpleasant flavors, aromas and colors when stored at warm temperatures, a new study has found. Published in ACS' *Journal of Agricultural and Food Chemistry*, it emphasizes the importance of storing these popular, economical vintages at cool temperatures.  Helene Hopfer and colleagues explain that compounds in wine react with oxygen in the air to change the way wine looks, tastes and smells. These reactions speed up with increasing temperature. Many winemakers are moving away from the traditional packaging for wine — glass bottles sealed with a natural cork stopper — and trying synthetic corks, screw caps or wine in a plastic bag inside a cardboard box. The scientists wanted to find out how this transition might affect the taste and aroma of wine under different storage conditions.  Using chemical analysis and a panel of trained tasters, the authors studied how storage at various temperatures affected unoaked California Chardonnay stored for three months in different wine packaging types: natural and synthetic corks, screw caps and two kinds of bag-in-box containers. Storage temperature had the biggest impact on all of the wines. Bag wine stored at 68 and 104 degrees Fahrenheit aged significantly faster than the bottled counterparts, becoming darker and developing vinegar notes. All the wines they tested aged better when stored at 50 degrees F.   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/112812JAF_thumb.jpg [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710503&m=2396995&u=ACS&j=12267563&s=http://web.1.c2.audiovideoweb.com/1c2web3536/112812jaf.jpg) for high-resolution image |   ARTICLE #1 **FOR IMMEDIATE RELEASE** “The Combined Effects of Storage Temperature and Packaging Type on the Sensory and Chemical Properties of Chardonnay”  [DOWNLOAD FULL TEXT ARTICLE](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710504&m=2396995&u=ACS&j=12267563&s=http://pubs.acs.org/stoken/presspac/presspac/full/10.1021/jf302910f)   CONTACT: Helene Hopfer, Ph.D. University of California, Davis Davis, Calif. 95616 Phone: 530-752-9356 Fax: 530-752-0382 Email: [hhopfer@ucdavis.edu](mailto:hhopfer@ucdavis.edu)  [To Top](#top)  http://images.magnetmail.net/images/clients/ACS/goldline.gif  ARTICLE #2 **FOR IMMEDIATE RELEASE**  **Plastics used in some medical devices break down in a previously unrecognized way** Macromolecules   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/120512Heart_thumb.jpg Plastics used in some medical devices, including those that keep the heart beating regularly, can break down in a previously unrecognized way.Credit: iStockphoto/Thinkstock |   Scientists have discovered a previously unrecognized way that degradation can occur in silicone-urethane plastics that are often considered for use in medical devices. Their study, published in ACS' journal *Macromolecules*, could have implications for device manufacturers considering use of these plastics in the design of some implantable devices, including cardiac defibrillation leads.  Kimberly Chaffin, Marc Hillmyer, Frank Bates and colleagues explain that some implanted biomedical devices, such as pacemakers and defibrillators, have parts made of a plastic consisting of polyurethane and silicone. While these materials have been extensively studied for failure due to interaction with oxygen, no published study has looked at interaction with water as a potential failure mechanism in this class of materials. In a cardiac lead application, these materials may be used as a coating on the electrical wires or "leads" that carry electric current from the battery in the device to the heart. Surgeons implant pacemakers in 600,000 people worldwide and defibrillators in 100,000 people in the United States each year. Since these implants must function reliably for years, the scientists wanted to determine whether the plastic material was suitable for long-term implants.  Their laboratory tests, including accelerated aging of the materials under conditions that simulated the inside of the human body, found indications that the material begins to break down within 3-6 years. “By making the conclusions of this novel, scientific research public in a respected peer-reviewed journal, device manufacturers may now consider these important findings in their device designs,” says Chaffin, distinguished scientist and lead author of the manuscript.  The authors acknowledge the [Characterization Facility in the College of Science and Engineering at the University of Minnesota](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710505&m=2396995&u=ACS&j=12267563&s=http://www.charfac.umn.edu/), which receives partial support from the [National Science Foundation](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710506&m=2396995&u=ACS&j=12267563&s=http://www.nsf.gov/) and the [Materials Research Science and Engineering Center at the University of Minnesota](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710507&m=2396995&u=ACS&j=12267563&s=http://www.mrsec.umn.edu/).   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/120512Macro_thumb.jpg [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710508&m=2396995&u=ACS&j=12267563&s=http://web.1.c2.audiovideoweb.com/1c2web3536/120512macro.jpg) for high-resolution image |   ARTICLE #2 **FOR IMMEDIATE RELEASE** “The Influence of Water on the Structure and Properties of PDMS-Containing Multiblock Polyurethanes”  [DOWNLOAD FULL TEXT ARTICLE](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710509&m=2396995&u=ACS&j=12267563&s=http://pubs.acs.org/stoken/presspac/presspac/full/10.1021/ma301965y) CONTACT:Michael Bernstein Phone: 202-872-6042 Email: [m\_bernstein@acs.org](http://www.mmsend88.com/link.cfm?r=800557068&sid=21712270&m=2396995&u=ACS&j=12267563&s=http://m_bernstein@acs.org)  [To Top](#top)  http://images.magnetmail.net/images/clients/ACS/goldline.gif  ARTICLE #3 **FOR IMMEDIATE RELEASE  First synthesis of gold nanoparticles inside human hair for dyeing and much more** Nano Letters   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/120512Hair_thumb.jpg Gold nanoparticles darken hair after treatment for one day, center, and 16 days, right (untreated hairs, left). [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710511&m=2396995&u=ACS&j=12267563&s=http://web.1.c2.audiovideoweb.com/1c2web3536/120512hair.jpg) for high-resolution image. Credit: American Chemical Society |   In a discovery with applications ranging from hair dyeing to electronic sensors to development of materials with improved properties, scientists are reporting the first synthesis of gold nanoparticles inside human hairs. Their study appears in ACS’ journal *Nano Letters*.  Philippe Walter and colleagues explain that gold nanoparticles — 40,000-60,000 of which could fit across the width of a human hair — are a hot topic. Scientists are exploring uses, ranging from electronics and sensors to medical diagnostic tests and cancer treatments. Gold nanoparticles have been deposited on hair for use as electrodes, and gold nanoparticles had been used to dye wool. Walter’s team looked at a new use — dyeing hair, inspired by the ancient Greeks’ and Romans’ use of another metal, lead, to color their hair.  They describe the first synthesis of fluorescent gold nanoparticles inside human hair. It involved soaking white hairs in a solution of a gold compound. The hairs turned pale yellow and then darkened to a deep brown. Using an electron microscope, the scientists confirmed that the particles were forming inside the hairs’ central core cortex. The color remained even after repeated washings.  The authors acknowledge funding from the [Agence Nationale de la Recherche](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710512&m=2396995&u=ACS&j=12267563&s=http://www.agence-nationale-recherche.fr/).   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/120512Nano_thumb.jpg [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710513&m=2396995&u=ACS&j=12267563&s=http://web.1.c2.audiovideoweb.com/1c2web3536/120512nano.jpg) for high-resolution image |   ARTICLE #3 **FOR IMMEDIATE RELEASE** “Hair Fiber as a Nanoreactor in Controlled Synthesis of Fluorescent Gold Nanoparticles”  [DOWNLOAD FULL TEXT ARTICLE](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710514&m=2396995&u=ACS&j=12267563&s=http://pubs.acs.org/stoken/presspac/presspac/full/10.1021/nl303107w)  CONTACT: Philippe Walter, Ph.D. Université Pierre et Marie Curie-CNRS Ivry-sur-Seine, Paris 94200 France Phone : +33 1 44 27 82 22 Fax : +33 1 44 27 82 98 Email: [philippe.walter@upmc.fr](mailto:philippe.walter@upmc.fr)    [To Top](#top)  http://images.magnetmail.net/images/clients/ACS/goldline.gif    ARTICLE #4 **FOR IMMEDIATE RELEASE: A PressPac Instant Replay\***  **Speed limits on cargo ships could reduce their pollutants by more than half** Environmental Science & Technology   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/102412Ship_thumb.jpg Speed limits on cargo ships could reduce their pollutants by more than half.Credit: iStockphoto/Thinkstock |   Putting a speed limit on cargo ships as they sail near ports and coastlines could cut their emission of air pollutants by up to 70 percent, reducing the impact of marine shipping on Earth’s climate and human health, scientists have found. Their evaluation of the impact of vessel speed reduction policies, such as those proposed by the California Air Resources board, appears in ACS’ journal Environmental Science & Technology.  David R. Cocker III and colleagues explain that marine shipping is the most efficient form of transporting goods, with more than 100,000 ships carrying 90 percent of the world’s cargo. However, engines on these vessels burn low-grade oil that produce large amounts of air pollution. Because fuel consumption and smokestack emissions increase exponentially with speed, the authors explored how speed limits could reduce pollution.  They found that slowing container ships to about 14 miles per hour (mph) reduced emissions of carbon dioxide by about 60 percent and nitrogen oxides by 55 percent compared to emissions at traditional cruising speeds of 25-29 mph. Soot emissions fell by almost 70 percent. The authors suggest that imposing these speed limits on vessels near ports and coastlines could significantly reduce their pollution and protect the health of people living in those areas.  The authors acknowledge funding from the [California Air Resources Board](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710515&m=2396995&u=ACS&j=12267563&s=http://www.mmsend88.com/link.cfm?r=823965978&sid=20996651&m=2340224&u=ACS&j=11886371&s=http://www.arb.ca.gov/homepage.htm) and the [U.S. Environmental Protection Agency](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710516&m=2396995&u=ACS&j=12267563&s=http://www.mmsend88.com/link.cfm?r=823965978&sid=20996652&m=2340224&u=ACS&j=11886371&s=http://www.epa.gov/).   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/120512EST_thumb.jpg [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710517&m=2396995&u=ACS&j=12267563&s=http://web.1.c2.audiovideoweb.com/1c2web3536/120512est.jpg) for high-resolution image |   ARTICLE #4 **FOR IMMEDIATE RELEASE** “Greenhouse Gas and Criteria Emission Benefits through Reduction of Vessel Speed at Sea”  [DOWNLOAD FULL TEXT ARTICLE](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710518&m=2396995&u=ACS&j=12267563&s=http://pubs.acs.org/stoken/presspac/presspac/abs/10.1021/es302371f)  CONTACT: David R. Cocker III, Ph.D. University of California, Riverside Riverside, Calif. 92507 Email: [dcocker@engr.ucr.edu](mailto:dcocker@engr.ucr.edu)  **\* 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**  **American Chemical Society Climate Science Toolkit: Fostering an understanding of climate science** Chemical & Engineering News   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/120512CEN_thumb.jpg [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710519&m=2396995&u=ACS&j=12267563&s=http://web.1.c2.audiovideoweb.com/1c2web3536/120512cen.jpg) for high-resolution image. |   A new web-based resource on climate science, designed to help scientists and others understand this key topic, is the focus of a Comment article in the current edition of *Chemical & Engineering News* (C&EN), the American Chemical Society’s weekly newsmagazine. ACS, the world’s largest scientific society, launched the resource this week.  ACS President Bassam Z. Shakhashiri explains in the article that the Society is among the major scientific organizations with position statements acknowledging the reality of climate change and recommending action. ACS’ [policy statement](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710520&m=2396995&u=ACS&j=12267563&s=http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_SUPERARTICLE&node_id=1907&use_sec=false&sec_url_var=region1&__uuid=c7d8c449-fb0b-41a4-9c88-62cc25cc9e31) mentions that people need a basic understanding of climate science in order to make informed personal decisions, and it describes climate change education for the public as “essential.” In 2011, Shakhashiri formed the ACS Presidential Working Group on Climate Science to develop a toolkit to guide members’ self-education about the fundamental chemical and physical processes that determine Earth’s climate.  Shakhashiri points out that the American Chemical Society Climate Science Toolkit, available at [www.acs.org/climatescience](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710521&m=2396995&u=ACS&j=12267563&s=http://www.acs.org/climatescience), includes explanations of the greenhouse effect, how vibrational energy from molecules changes into translational kinetic energy and more. It also provides “Climate Science Narratives” that can be adapted and personalized for speaking to students, educators, public officials and other audiences.  ARTICLE #5 **FOR IMMEDIATE RELEASE** "ACS Climate Science Toolkit: A New Resource For Members"  This story is available at: [http://cenm.ag/climatescience](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710522&m=2396995&u=ACS&j=12267563&s=http://cenm.ag/climatescience)    [To Top](#top)  http://images.magnetmail.net/images/clients/ACS/goldline.gif    **Journalists’ Resources** **About the Weekly PressPac** The ACS Weekly PressPac consists of summaries of research published in the American Chemical Society’s more than 40 peer-reviewed journals and its weekly newsmagazine, Chemical & Engineering News. ACS journals publish more than 35,000 articles annually. Although not traditional press releases, PressPac content can be used to prepare news stories, in conjunction with the full-text PDF and an interview with the authors. PressPac stories and the accompanying full-text PDFs also can be an excellent resource for features and background.  **Press releases, briefings and more from ACS’ 244th National Meeting** [www.eurekalert.org/acsmeet.php](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710523&m=2396995&u=ACS&j=12267563&s=http://www.eurekalert.org/acsmeet.php)  [http://www.ustream.tv/channel/acslive](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710524&m=2396995&u=ACS&j=12267563&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=21710525&m=2396995&u=ACS&j=12267563&s=http://www.insidescience.org/) to visit the Inside Science News website.  **C&EN Video Spotlight: Panda Power** The search for better biofuels is leaving no patch of grass unturned — Mississippi State University researchers are studying the poo that pandas at the Memphis Zoo leave behind. Pandas are among several critters that digest a tough-to-break-down compound called cellulose, which is found in plant cell walls. Microbes living in pandas’ guts help carry out that degradation process. Since the microbes end up in panda poo, researchers can analyze the poo to find the microbial genes that do the digesting job. By harnessing these genes, researchers hope to someday make biofuels more efficiently from plants such as switchgrass and sugarcane.  [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710526&m=2396995&u=ACS&j=12267563&s=http://cenm.ag/panda) to read the article and view the video.  **Must-Read from C&EN: The Perfect Holiday Gifts** The Newscripts gang has been wading through sites on the Internet to find the perfect gifts for chemistry lovers, with a few of their favorites in the article, and more at the [News­cripts blog](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710527&m=2396995&u=ACS&j=12267563&s=http://cenblog.org/newscripts/2012/11/2012-holiday-gift-guide/#more-3388). For the full story, contact [newsroom@acs.org](mailto:newsroom@acs.org).   **ACS Pressroom Blog** The ACS Office of Public Affairs' [pressroom blog](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710528&m=2396995&u=ACS&j=12267563&s=https://communities.acs.org/community/science/science_news) highlights research from ACS’ more than 40 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=21710529&m=2396995&u=ACS&j=12267563&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=21710530&m=2396995&u=ACS&j=12267563&s=https://twitter.com/signup). Then visit [http://twitter.com/ACSpressroom](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710531&m=2396995&u=ACS&j=12267563&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=21710532&m=2396995&u=ACS&j=12267563&s=http://twitter.com/cenmag)> for the latest news in chemistry and dispatches from C&EN's blog, CENtral Science <[http://centralscience.org](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710533&m=2396995&u=ACS&j=12267563&s=http://centralscience.org)>.**ACS Press Releases**  [Press releases](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710534&m=2396995&u=ACS&j=12267563&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=21710535&m=2396995&u=ACS&j=12267563&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/2012PrizedScienceLanger.png |   Prized Science: How the Science Behind ACS Awards Impacts Your Life video series is new for 2012! The first episode features the research of Dr. Robert Langer, winner of the 2012 ACS Priestley Medal. He is a professor at the Massachusetts Institute of Technology. The Priestley Medal is the highest honor of the ACS, and it recognizes Langer’s pioneering work making body tissues in the lab by growing cells on special pieces of plastic. Langer’s team has used the approach to make skin for burn patients, for instance, with the goal of eventually making whole organs for transplantation. The second episode features Dr. Chad Mirkin, winner of the 2012 ACS Award for Creative Invention. His research has provided patients with faster diagnoses for influenza and other respiratory infections, and new tests that improve care for heart disease. 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=21710536&m=2396995&u=ACS&j=12267563&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).  **The Periodic Table Table Featuring Theo Gray**   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/VideoGrayTable_thumb(1).png |   Some people collect stamps. Wolfram Research co-founder and author Theo Gray collects elements. Step into his office, and you'll see a silicon disc engraved with Homer Simpson, a jar of mercury, uranium shells and hundreds of other chemical artifacts. But his real DIY masterpiece is the world's first ["periodic table table."](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710537&m=2396995&u=ACS&j=12267563&s=http://www.bytesizescience.com/index.cfm/2012/2/22/The-Periodic-Table-Table-Featuring-Theo-Gray) Within this masterfully constructed table-top lay samples of nearly every element known to man, minus the super-radioactive ones.  **Healing the voice: Synthetic vocal cords**   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/VideoVocalCords_thumb(2).jpg |   [Synthetic vocal cords](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710538&m=2396995&u=ACS&j=12267563&s=http://www.bytesizescience.com/index.cfm/2012/5/22/Bytesize-Science-Healing-the-voice-with-synthetic-vocal-cords%20) may someday heal the voices of singers like Julie Andrews -- whose legendary voice was permanently damaged in a 1997 operation. Filmed in the lab of 2012 ACS Priestley Medalist and MIT Institute Professor Robert Langer, our latest video explains how artificial polymer vocal cords may help repair damaged vocal tissue.   [The Chemistry of Beer](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710539&m=2396995&u=ACS&j=12267563&s=http://youtu.be/2xKpQ11CpVE)  [The Chemistry of Cheese](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710540&m=2396995&u=ACS&j=12267563&s=http://youtu.be/jMAlToEYHJM)  [Without a scratch: Self-Healing Materials](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710541&m=2396995&u=ACS&j=12267563&s=http://youtu.be/Bx3WTSSD5f0)  [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. 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[Listen to the latest episodes of Bytesize Science](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710543&m=2396995&u=ACS&j=12267563&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=21710544&m=2396995&u=ACS&j=12267563&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=21710545&m=2396995&u=ACS&j=12267563&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 content 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=21710546&m=2396995&u=ACS&j=12267563&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=21710547&m=2396995&u=ACS&j=12267563&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=21710548&m=2396995&u=ACS&j=12267563&s=http://www.facebook.com/pages/Science-Elements/135606971011). |  | |  |  | | **And Don’t Miss. . .**  **[General Chemistry Glossary](http://www.mmsend88.com/link.cfm?r=800557068&sid=21710549&m=2396995&u=ACS&j=12267563&s=http://antoine.frostburg.edu/chem/senese/101/glossary.shtml)** Simple definitions and explanations of chemistry terms. |  |   [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. 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