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| http://images.magnetmail.net/images/template/acs/gold.gif In This Edition  |  | | --- | | [New surfaces repel most known liquids](#1)  [Sustainable reinforcement for concrete has newly discovered benefits](#ARTICLE_2)  [Development of the first way to make large amounts of promising anti-cancer substance](#3)  [New twist on using biomass for perfume, cosmetic, personal care products](#4)  [2013 Economic outlook for global chemical industry](#5) |  |  | | --- | | [**Journalists’ Resources:**](#Resources)  [About the Weekly PressPac](#About)  [News media registration for ACS’ 245th National Meeting & Exposition in New Orleans](#press)  [Press releases, briefings and more from ACS’ 244th National Meeting](#registration)[Inside Science News Service](#InsideScience)  [C&EN Video Spotlight: The Right Stuff](#VideoSpotlight)  [Must-Read from C&EN: Solving a Mystery about Ancient Gold Jewelry](#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=22224975&m=2450824&u=ACS&j=12667563&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 16, 2013   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=22234772&m=2450824&u=ACS&j=12667563&s=https://twitter.com/ACSpressroom)  [http://images.magnetmail.net/images/clients/ACS/Facebook.jpg](http://www.mmsend88.com/link.cfm?r=800557068&sid=22234773&m=2450824&u=ACS&j=12667563&s=https://www.facebook.com/pages/American-Chemical-Society-Press-Room/130342583687829)  ARTICLE #1 **FOR IMMEDIATE RELEASE**  **New surfaces repel most known liquids** Journal of the American Chemical Society   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/011613shirtstain.jpg An advance in repelling ketchup, blood, ink and other liquids could lead to stain-proof, spill-proof clothing. Credit: iStockbyte/ Thinkstock |   In an advance toward stain-proof, spill-proof clothing, protective garments and other products that shrug off virtually every liquid — from blood and ketchup to concentrated acids — scientists are reporting development of new “superomniphobic” surfaces. Their report on surfaces that display extreme repellency to two families of liquids — Newtonian and non-Newtonian liquids — appears in the Journal of the American Chemical Society.  Anish Tuteja and colleagues point out that scientists have previously reported “omniphobic” surfaces, the term meaning that such surfaces can cause a range of different liquids to bead up and not spread on them. But typically very low surface tension liquids such as some oils and alcohols can adhere to those surfaces. Further, scientists have mostly focused on making surfaces that repel only one of the two families of liquids — Newtonian liquids, named for the great English scientist who described how they flow. Tuteja’s team set out to do the same for non-Newtonian liquids, which include blood, yogurt, gravy, various polymer solutions and a range of other liquids.  In their work, Tuteja and colleagues describe surfaces that resist liquids, including concentrated acids and bases, oils and alcohols with extremely low surface tension, solvents and various polymer solutions. They say that virtually all liquids easily roll off and bounce on the new surfaces, which makes them ideal for protecting other materials from the effects of chemicals. The scientists conclude that the surfaces will have numerous applications, including stain-free clothing; spill-resistant, breathable protective wear; surfaces that shrug off microbes like bacteria; and corrosion-resistant coatings.  The authors acknowledge funding from the [Air Force Office of Scientific Research](http://www.mmsend88.com/link.cfm?r=800557068&sid=22224978&m=2450824&u=ACS&j=12667563&s=http://www.wpafb.af.mil/library/factsheets/factsheet.asp?id=8131), donors of the [American Chemical Society Petroleum Research Fund](http://www.mmsend88.com/link.cfm?r=800557068&sid=22224979&m=2450824&u=ACS&j=12667563&s=http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_TRANSITIONMAIN&node_id=631&use_sec=false&sec_url_var=region1&__uuid=de85ceec-d752-42b5-9777-f6fb650639d0) and the [China Scholarship Council](http://www.mmsend88.com/link.cfm?r=800557068&sid=22224980&m=2450824&u=ACS&j=12667563&s=http://en.csc.edu.cn/).   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/011613jacscover.jpg [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=22264088&m=2450824&u=ACS&j=12667563&s=http://web.1.c2.audiovideoweb.com/1c2web3536/011613jacscover.jpg) for high-resolution image |   ARTICLE #1 **FOR IMMEDIATE RELEASE** “Superomniphobic Surfaces for Effective Chemical Shielding”  [DOWNLOAD FULL TEXT ARTICLE](http://www.mmsend88.com/link.cfm?r=800557068&sid=22224981&m=2450824&u=ACS&j=12667563&s=http://pubs.acs.org/stoken/presspac/presspac/full/10.1021/ja310517s)   CONTACT: Anish Tuteja, Ph.D. Department of Materials Science and Engineering Macromolecular Science and Engineering University of Michigan Ann Arbor, Mich. 48109 Email: [atuteja@umich.edu](mailto:atuteja@umich.edu)  [To Top](#top)  http://images.magnetmail.net/images/clients/ACS/goldline.gif  ARTICLE #2 **FOR IMMEDIATE RELEASE**  **Sustainable reinforcement for concrete has newly discovered benefits** Industrial & Engineering Chemistry Research   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/011613twine.jpg Cheap fiber used to make burlap, gunny sacks and twine could inexpensively reinforce mortar and concrete.Credit: iStockphoto/Thinkstock |   Fashionable people may turn up their noses at jute — the cheap fiber used to make burlap, gunny sacks, twine and other common products — but new research is enhancing jute’s appeal as an inexpensive, sustainable reinforcement for mortar and concrete. The study appears in ACS’ journal Industrial & Engineering Chemistry Research.  Subhasish B Majumder and colleagues note that there has been a resurgence of interest in using economical, sustainable natural fibers, rather than steel or synthetic fibers, to reinforce the cement compositions used to make concrete and mortar, the world’s most widely used building materials. That reinforcement makes cement compositions stronger and more resistant to cracks. Their previous research showed that jute works as a reinforcement fiber.  The new study discovered another advantage of jute, which is second only to cotton as the most widely used natural fiber. The addition of jute fibers also delays the hardening of concrete and mortar, which must be trucked to construction sites. “The prolonged setting of these fiber-reinforced cement composites would be beneficial for applications where the pre-mixed cement aggregates are required to be transported from a distant place to construction site,” the report states.  The authors acknowledge funding from the [National Jute Board of India](http://www.mmsend88.com/link.cfm?r=800557068&sid=22224982&m=2450824&u=ACS&j=12667563&s=http://www.jute.com:8080/web/njb/home/) and [CSIR](http://www.mmsend88.com/link.cfm?r=800557068&sid=22224983&m=2450824&u=ACS&j=12667563&s=http://rdpp.csir.res.in/csir_acsir/Home.aspx) India.   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/011613iecresearchcover.jpg [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=22264089&m=2450824&u=ACS&j=12667563&s=http://web.1.c2.audiovideoweb.com/1c2web3536/011613iecresearchcover.jpg) for high-resolution image |   ARTICLE #2 **FOR IMMEDIATE RELEASE** “Effect of Jute as Fibre Reinforcement Controlling the Hydration Characteristics of Cement Matrix”  [DOWNLOAD FULL TEXT ARTICLE](http://www.mmsend88.com/link.cfm?r=800557068&sid=22224985&m=2450824&u=ACS&j=12667563&s=http://pubs.acs.org/stoken/presspac/presspac/abs/10.1021/ie300607r) CONTACT:Subhasish B Majumder, Ph.D., or Prof. Basudam Adhikari Materials Science Centre Indian Institute of Technology Kharagpur 721302 W.B. India Office Phone: +91 3222 283986, 283966  Mobile Phone: +91 9433611775 Email: [subhasish@matsc.iitkgp.ernet.in](mailto:subhasish@matsc.iitkgp.ernet.in) or [ba@matsc.iitkgp.ernet.in](mailto:ba@matsc.iitkgp.ernet.in)  [To Top](#top)  http://images.magnetmail.net/images/clients/ACS/goldline.gif  ARTICLE #3 **FOR IMMEDIATE RELEASE  Development of the first way to make large amounts of promising anti-cancer substance** Journal of Medicinal Chemistry   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/011613cancerpills.jpg Scientists have developed what may be the first way to make large quantities of a promising anti-cancer substance. Credit: iStockphoto/Thinkstock |   Scientists are reporting development of the first practical way to make large amounts of a promising new anti-cancer substance that kills cancer cells differently than existing medicines. Their article on synthesis of the substance, and tests demonstrating its effectiveness in the laboratory, appears in ACS’ Journal of Medicinal Chemistry.  Isamu Shiina and colleagues explain that the substance, AMF-26, showed promise against certain forms of cancer in laboratory studies, fostering excitement about its potential for development as a new anti-cancer drug. That excitement centered on AMF-26’s action in targeting a structure in cells, the Golgi apparatus, that had never been exploited in the past. The Golgi apparatus sorts and modifies hormones, enzymes and other key proteins for transport elsewhere. However, AMF-26 had been available in only small amounts by  semisynthesis starting from AMF-14, which was extracted from the common soil mold of the genus Trichoderma.  Their report describes the first successful practical synthesis of AMF-26 and laboratory tests showing that the synthetic AMF-26 is just as effective as its natural counterpart. "The large-scale production of AMF-26 and its derivatives for the development of novel anticancer drugs are now in progress in this laboratory," the report states.  The authors acknowledge funding from Health and Labour Sciences Research Grants from the [Ministry of Health, Labour and Welfare](http://www.mmsend88.com/link.cfm?r=800557068&sid=22224988&m=2450824&u=ACS&j=12667563&s=http://www.mhlw.go.jp/english/), Japan.   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/011613medicinalchemcover.jpg [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=22264090&m=2450824&u=ACS&j=12667563&s=http://web.1.c2.audiovideoweb.com/1c2web3536/011613medichemcover.jpg) for high-resolution image |   ARTICLE #3 **FOR IMMEDIATE RELEASE** “Total Synthesis of AMF-26, an Antitumor Agent for Inhibition of the Golgi System, Targeting ADP-Ribosylation Factor 1”  [DOWNLOAD FULL TEXT ARTICLE](http://www.mmsend88.com/link.cfm?r=800557068&sid=22234774&m=2450824&u=ACS&j=12667563&s=http://pubs.acs.org/stoken/presspac/presspac/full/10.1021/jm301695c)  CONTACT: Isamu Shiina, Ph.D. Department of Applied Chemistry Tokyo University of Science 1-3 Kagurazaka, Shinjuku-ku Tokyo 162-8601, Japan Phone: +81-3-3260-4271 Fax: +81-3-3260-5609 E-mail: [shiina@rs.kagu.tus.ac.jp](mailto:shiina@rs.kagu.tus.ac.jp)  [To Top](#top)  http://images.magnetmail.net/images/clients/ACS/goldline.gif    ARTICLE #4 **FOR IMMEDIATE RELEASE: A PressPac Instant Replay\***  **New twist on using biomass for perfume, cosmetic, personal care products** Journal of the American Chemical Society   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/1011613fragrance.jpg Plants like star anise could be sustainable new sources of valuable fragrance ingredients for sunscreens and perfumes.Credit: iStockphoto/Thinkstock |   In a new approach for tapping biomass as a sustainable raw material, scientists are reporting use of a Nobel-Prize-winning technology to transform plant “essential oils” — substances with the characteristic fragrance of the plant — into high-value ingredients for sunscreens, perfumes and other personal care products. The report on the approach, which could open up new economic opportunities for tropical countries that grow such plants, appears in the Journal of the American Chemical Society.  Deryn Fogg, Eduardo dos Santos and colleagues explain that breaking down plant material into ingredients for making commercial products is getting much attention as a sustainable substitute for raw materials now obtained from petroleum. They decided to test a complementary approach, which involves enhancing the complexity of substances found naturally in plants in ways that form antioxidants and other components of cosmetics and perfumes. Current methods for making some of these ingredients from plants are time-consuming, costly and wasteful. That’s why the scientists turned to “metathesis” — topic of the 2005 Nobel Prize in Chemistry — to make personal care product ingredients from plant essential oils.  They describe use of metathesis in the laboratory to transform compounds in essential oils into highly valuable personal care product ingredients. “These methodologies offer the potential for economic expansion via the sustainable cultivation and elaboration of high-return source species in the tropical countries that represent the major producers of essential oils,” say the researchers.  The authors acknowledge funding from [NSERC](http://www.mmsend88.com/link.cfm?r=800557068&sid=22224990&m=2450824&u=ACS&j=12667563&s=http://www.nserc-crsng.gc.ca/) (Canada) and [CNPq](http://www.mmsend88.com/link.cfm?r=800557068&sid=22224991&m=2450824&u=ACS&j=12667563&s=http://www.cnpq.br/) (Brazil).   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/011613jacscover(1).jpg [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=22264091&m=2450824&u=ACS&j=12667563&s=http://web.1.c2.audiovideoweb.com/1c2web3536/011613jacscover.jpg) for high-resolution image |   ARTICLE #4 **FOR IMMEDIATE RELEASE** “Chemical Plants: High-Value Molecules from Essential Oils”  [DOWNLOAD FULL TEXT ARTICLE](http://www.mmsend88.com/link.cfm?r=800557068&sid=22224992&m=2450824&u=ACS&j=12667563&s=http://pubs.acs.org/stoken/presspac/presspac/full/10.1021/ja310054d)  CONTACT: Deryn E. Fogg, Ph.D. Department of Chemistry and Center for Catalysis Research & Innovation University of Ottawa Ottawa, Ontario Canada K1N 6N5 Email: [dfogg@uottawa.ca](mailto:dfogg@uottawa.ca)  or  Eduardo N. dos Santos, Ph.D. Departmento de Química-ICEx Universidade Federal de Minas Gerais 31270-901 Belo Horizonte Brazil Email: [nicolau@ufmg.br](mailto:nicolau@ufmg.br)  **\* 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**  **2013 Economic outlook for global chemical industry** Chemical & Engineering News   |  | | --- | | http://images.magnetmail.net/images/clients/ACS/09102CENcoversmall.jpg [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=22264092&m=2450824&u=ACS&j=12667563&s=http://web.1.c2.audiovideoweb.com/1c2web3536/09102CENcover.jpg) for high-resolution image. |   The 2013 outlook for the global chemical industry — a $3 trillion enterprise that impacts virtually every other sector of the economy — is the topic of the cover story in this week’s edition of Chemical & Engineering News. C&EN is the weekly newsmagazine of the American Chemical Society, the world’s largest scientific society.  Titled “World Chemical Outlook” and compiled by a team of 10 editors and correspondents, the annual feature forecasts chemical industry growth rates in various regions, including a modest 1.9 percent increase in the United States (compared to 1.5 percent growth in 2012) and a 0.5 percent increase in Europe (an improvement from the 2.0 percent contraction in 2012).  The story describes several bright spots dotting that generally overcast landscape. U.S. chemical manufacturers, for instance, can look forward to another year of low-priced natural gas to fuel their facilities and provide cheap raw materials. Producers of “fine chemicals,” highly pure substances produced in relatively small amounts for medications, pesticides and other products, should do better than the industry as a whole. Likewise, makers of scientific instruments for the energy, environmental, forensics and food markets also are upbeat about 2013 sales.  ARTICLE #5 **FOR IMMEDIATE RELEASE** "World Chemical Outlook"  This story is available at: [http://cenm.ag/wco2013](http://www.mmsend88.com/link.cfm?r=800557068&sid=22264093&m=2450824&u=ACS&j=12667563&s=http://cenm.ag/wco2013)    [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.  **News media registration for ACS’ 245th National Meeting & Exposition in New Orleans** News media [registration](http://www.mmsend88.com/link.cfm?r=800557068&sid=22264094&m=2450824&u=ACS&j=12667563&s=https://www.xpressreg.net/register/acsa043/media/reginfo.asp) is now open for the American Chemical Society’s 245th National Meeting & Exposition in New Orleans, April 7-11, 2013. The event will include almost 12,000 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 2013, the meeting will take place at the Ernest N. Morial Convention Center and area hotels.  To view the full news release about meeting registration, [click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=22264095&m=2450824&u=ACS&j=12667563&s=http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_ARTICLEMAIN&node_id=222&content_id=CNBP_031828&use_sec=true&sec_url_var=region1&__uuid=a563a716-754e-4dda-b033-8128b87b7fb7).  **Press releases, briefings and more from ACS’ 244th National Meeting** [www.eurekalert.org/acsmeet.php](http://www.mmsend88.com/link.cfm?r=800557068&sid=22224994&m=2450824&u=ACS&j=12667563&s=http://www.eurekalert.org/acsmeet.php)  [www.ustream.tv/channel/acslive](http://www.mmsend88.com/link.cfm?r=800557068&sid=22234775&m=2450824&u=ACS&j=12667563&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=22224996&m=2450824&u=ACS&j=12667563&s=http://www.insidescience.org/) to visit the Inside Science News website.  **C&EN Video Spotlight: The Right Stuff** The first round-the-world flight on a plane that doesn’t need a drop of fuel might become a reality in 2015 — thanks to some cutting-edge chemistry. Solar Impulse is a project to make a solar-powered plane that can fly around the world. Watch the plane in action and learn about the innovative materials inside it. Then read the accompanying story by C&EN Senior Editor Alex Scott, which explains how the project’s founders, two Swiss pilots, teamed up with chemical companies Bayer MaterialScience and Solvay to come up with the materials for the plane.  [Click here](http://www.mmsend88.com/link.cfm?r=800557068&sid=22316050&m=2450824&u=ACS&j=12667563&s=http://cenm.ag/solarplane) to read the article and view the video.  **Must-Read from C&EN: Solving a Mystery about Ancient Gold Jewelry** Warrior nomads in Mongolia called the Xiongnu had a taste for the finer things in life, particularly gold jewelry, which they wore to their graves. Archaeologists now have solved a long-standing mystery over whether the gold originated from local deposits or Chinese mines. For the story, and other news from a popular C&EN page, 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=22224997&m=2450824&u=ACS&j=12667563&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=22224998&m=2450824&u=ACS&j=12667563&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=22224999&m=2450824&u=ACS&j=12667563&s=https://twitter.com/signup). Then visit [http://twitter.com/ACSpressroom](http://www.mmsend88.com/link.cfm?r=800557068&sid=22225000&m=2450824&u=ACS&j=12667563&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=22225001&m=2450824&u=ACS&j=12667563&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=22225002&m=2450824&u=ACS&j=12667563&s=http://centralscience.org)>.**ACS Press Releases**  [Press releases](http://www.mmsend88.com/link.cfm?r=800557068&sid=22225003&m=2450824&u=ACS&j=12667563&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=22225004&m=2450824&u=ACS&j=12667563&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=22225005&m=2450824&u=ACS&j=12667563&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=22225006&m=2450824&u=ACS&j=12667563&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=22225007&m=2450824&u=ACS&j=12667563&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=22225008&m=2450824&u=ACS&j=12667563&s=http://youtu.be/2xKpQ11CpVE)  [The Chemistry of Cheese](http://www.mmsend88.com/link.cfm?r=800557068&sid=22225009&m=2450824&u=ACS&j=12667563&s=http://youtu.be/jMAlToEYHJM)  [Without a scratch: Self-Healing Materials](http://www.mmsend88.com/link.cfm?r=800557068&sid=22225010&m=2450824&u=ACS&j=12667563&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=22225012&m=2450824&u=ACS&j=12667563&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=22225013&m=2450824&u=ACS&j=12667563&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=22225014&m=2450824&u=ACS&j=12667563&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. 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[Listen to the latest episodes of Science Elements in your web browser](http://www.mmsend88.com/link.cfm?r=800557068&sid=22225016&m=2450824&u=ACS&j=12667563&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=22225017&m=2450824&u=ACS&j=12667563&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=22234776&m=2450824&u=ACS&j=12667563&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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