Spotlight on ADEPS science and technical achievements

Click on the headlines to read a sampling of some of the top ADEPS science and technical news and accomplishments from the past year, as featured in ADEPS highlights and newsletters and Laboratory news releases and publications.

2010

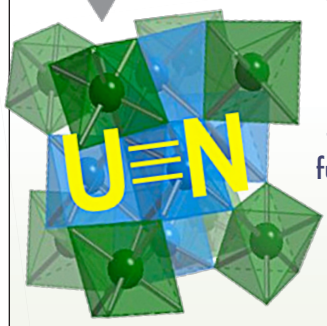
Los Alamos NATIONAL LABORATORY EST. 1943

Los Alamos Neutron Science Center gets capacity boost: New flight path to help ensure reliability of semiconductor chips

Bacchus subcritical experiment conducted at Nevada National Security Site

Structural distortions emerge from nothing at the nanoscale: Newly discovered phase helps explain materials' ability to convert waste heat to electricity. Research featured in *Science*

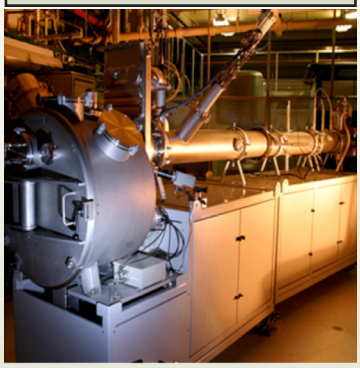
Researchers use light to create rare uranium molecule: Opening a new field of study to understand uranium nitrides as a promising alternative to traditional nuclear fuels. Research featured in *Nature Physics*



Carbon nanostructures—Elixir or poison? Los Alamos researchers find a case where size really does matter

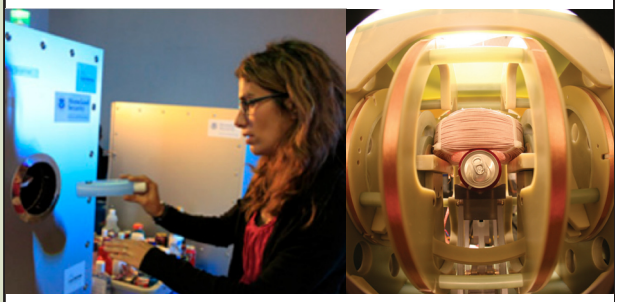
Los Alamos-Argonne partnership will aid understanding of complex materials

Safer nuclear reactors could result from Los Alamos research: 'Loading-unloading' effect of grain boundaries key to repair of irradiated metal. Research featured in *Science*



Federal Laboratory Consortium Award for ENDURE™ SCR Catalyst: Novel technology reduces emissions

MagViz BLS Security Demo at Sunport: Prototype liquid scanning system demonstrated for media, public



R&D100 award: Making a better superconducting wire

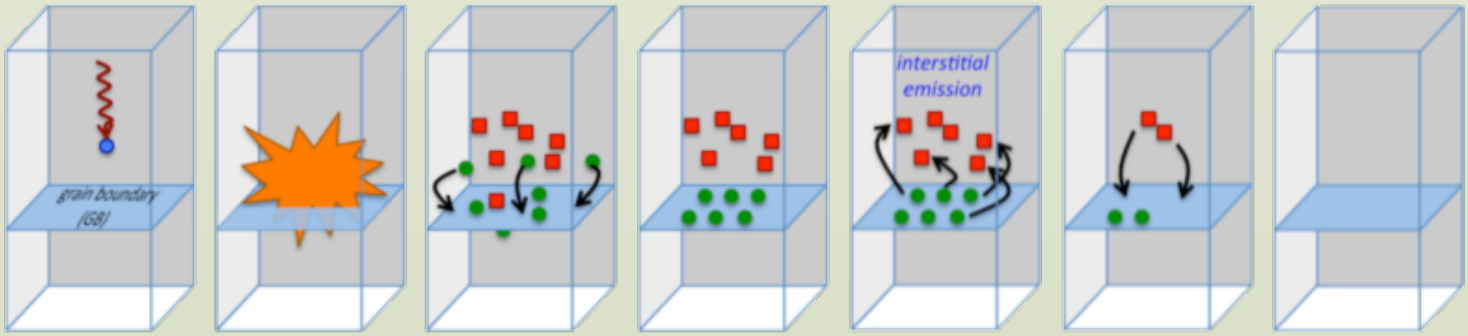
Scientists produce transparent, light-harvesting material: Breakthrough could lead to solar-power-generating windows

DOE recognizes Lab's lighting research achievements

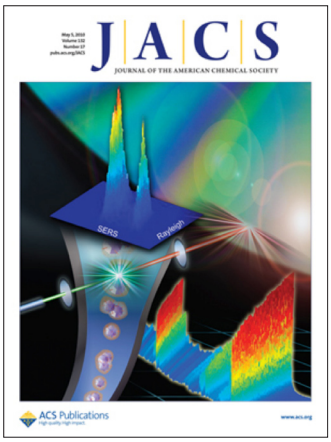
Mimicking the Moon's surface in the basement: Ion Beam Materials Lab helps confirm that the Moon is bone dry

Los Alamos expertise integral to Nuclear Energy Innovation Hub: LANL part of national team creating 'virtual' reactor for next-generation power. The Consortium for Advanced Simulation of Light Water Reactors will leverage the Laboratory's world-class materials science capabilities

CASL



Lab research may aid characterization and development of nanoparticles and sensing applications.
Research featured in *JACS*



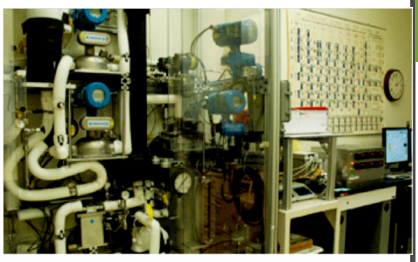
New anti-neutrino oscillation results from MiniBooNE

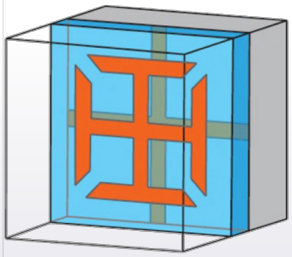
Hitting the mark: Spallation neutron target expected to double cold neutron flux

Lab researchers develop simple method to prepare nanostructured metals for sensing applications

Lab builds distillation test station for energy savings in light hydrocarbon separations

LANSCE sponsors neutron scattering school on structural materials





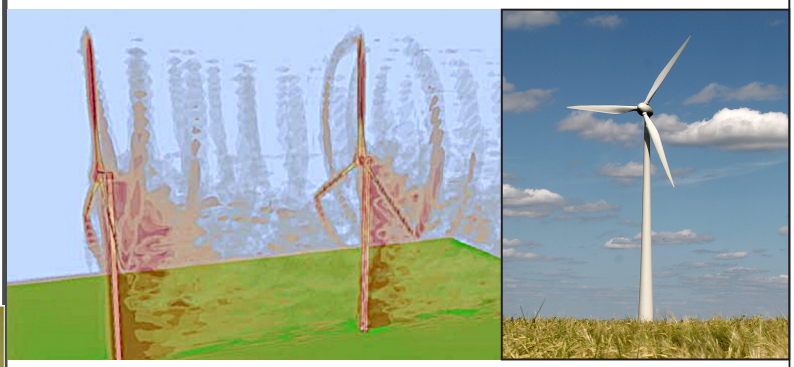
Lab researchers discover novel approach to antireflection coating

Lab researchers developing affordable, flexible, and rapid prototyping option for lab-on-a-chip applications

LANL fuel-cell paper declared a 'classic'

MagViz commercialization workshop draws interest: Technology's inventors offer a demonstration

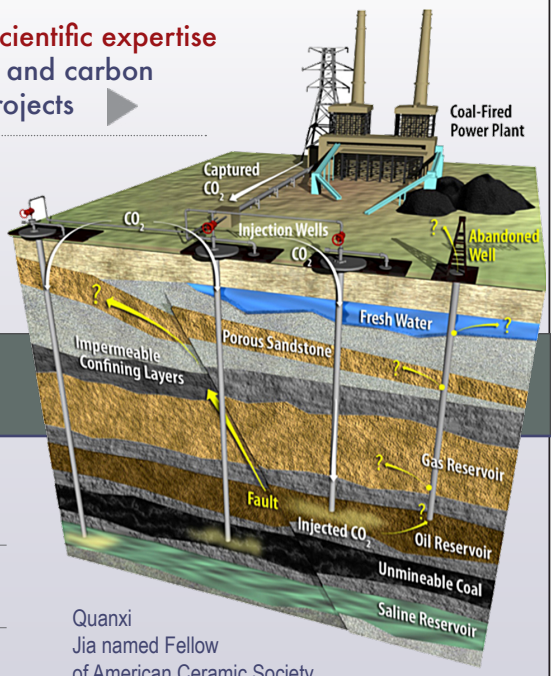
Two 'intelligent wind turbine' projects aim to assess operations under varying weather conditions: Models will provide guidance on the optimal operational status expected from each turbine under various weather conditions



Lab researchers examine accelerator-production process at LANSCE for a medical therapy isotope

Superluminal RADAR System receives Notable Technology Development award at Federal Laboratory Consortium regional meeting

LANL lends its scientific expertise to clean energy and carbon sequestration projects



Awards recognize scientific and technical achievements:

Christopher Mauger receives early career award and 5-year grant for "Design of the Near Detectors and Optimization of Water and Ice Targets for Fine-grained Tracking Detectors for the Fermilab Long-Baseline Neutrino Experiment."

Laboratory Fellow Rusty Gray named President of The Minerals, Metals & Materials Society (TMS)

Karen Kippen, Robb Kramer, Tom King recognized with International Technical Publications Competition Award

Vivien Zapf receives Lee Osheroff Richardson prize: Annual award promotes and supports development of early-career young North American scientists

Francisco 'Javier' Baca receives Trailblazer Award from Minorities in Research Science Council

James Rhyne named Neutron Scattering Society of America Fellow

Jian Wang receives LANL Distinguished Postdoctoral Award

John Singleton honored by *New Mexico Business Weekly:* Among this years "Who's Who in Technology"

Larry Schultz and Michal Mocko recognized with Programmatic Impact Award at Technology Transfer Recognition and Awards ceremony for efforts in the Stand-off Radiation Detection System program

Quanxi Jia named Fellow of American Ceramic Society

Eric Bauer wins Presidential Early Career Award for work in condensed-matter physics

Brenda Dingus, William Louis, and Dipen Sinha selected as Los Alamos National Laboratory Fellows

Scott Crooker selected as American Physical Society Fellow