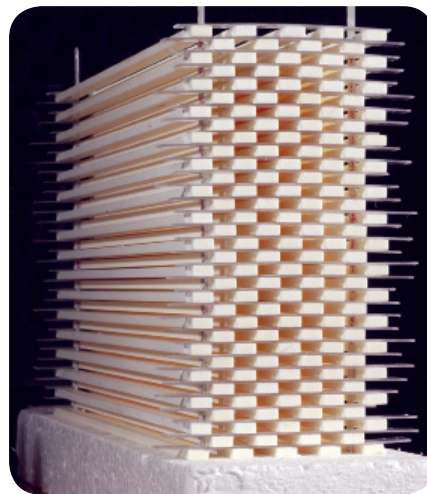




THE Ames Laboratory
Creating Materials & Energy Solutions

Did You Know?

- ◆ Ames Laboratory is the home to materials scientist Danny Shechtman, who won the 2011 Nobel Prize in Chemistry for the discovery of quasicrystals.
- ◆ An Ames Laboratory chemist was the first person to quantitatively analyze the chemical content of a single human red blood cell, using a device he designed and built.
- ◆ Ames Laboratory scientists have won 16 prestigious R&D 100 Awards, the most recent in 2010. Referred to as the "Oscars of Applied Science," the awards recognize the most promising new technologies.
- ◆ Ames Laboratory's Materials Preparation Center produces the purest rare-earth materials used in academia and industrial research today.
- ◆ Three Ames Laboratory researchers received Federal Laboratory Consortium National Excellence in Technology Transfer awards in 2010.
- ◆ Ames Laboratory known worldwide for its ability to grow large single crystals of complex materials.
- ◆ Ames Laboratory's innovative research has led to new technologies that have helped launched 24 companies.
- ◆ Ames Laboratory is a leader in iron arsenide superconductor research.
- ◆ An Ames Lab senior metallurgist's patented lead-free solder formula is now licensed by more than 50 companies worldwide to help meet legislation banning lead from consumer electronic products.
- ◆ Ames Laboratory physicists helped create left-handed materials, which exhibit fascinating properties that cannot be found in naturally occurring materials. The creators were awarded the European Union's highest honor in the field of science.
- ◆ An Ames Laboratory student went on to help researchers confirm the existence of element 106, seaborgium, a type of primordial plutonium.
- ◆ An Ames Laboratory-developed analysis tool helped the U.S. Food and Drug Administration trace the batch of potassium cyanide used to contaminate the Tylenol® capsules that killed seven people in Chicago on a single day in September 1982.



Photonic crystal

- ◆ Ames Laboratory physicists designed and demonstrated the existence of photonic bandgap crystals, making it possible to develop more precise and efficient lasers.
- ◆ Ames Laboratory scientists developed the process to produce high-purity uranium for the Manhattan Project, producing 2 million pounds of the product.
- ◆ Since 1947, approximately 1,500 Ph.D.s have been awarded by Iowa State University to students conducting research in the physical sciences at the Ames Laboratory.

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