

# HOTLINE

The Princeton Plasma Physics Laboratory is a United States Department of Energy Facility

## PPPL Recognizes Inventors

In June, the Laboratory honored 21 inventors during the nineteenth annual Patent Awareness Program Recognition Dinner at Princeton University's Prospect House.

The event recognized inventors who received patents, applied for patents, and disclosed inventions during Fiscal Year 2000. The honorees are from the Research, Engineering, and Technical staff of PPPL, as well as from other institutions that work in collaboration with the Lab.

PPPL Committee on Inventions Chairperson Lewis Meixler, who served as master of ceremonies at the dinner, recounted the history of the PPPL Patent Program. Since the

Laboratory opened in 1951, there have been a total of 711 invention disclosures, and of those, 96 have resulted in patents being awarded by the U.S. Patent and Trademark Office. "This averages out to 14 disclosures per year and about 1.9 patents annually. This year we are celebrating 10 disclosures, one patent applied for, and two U.S. Patents awarded," said Meixler.

The Committee Chair also discussed the processes Princeton University and the Department of Energy go through to

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Photo by Gregg Wielage

The inventors at the Patent Dinner are, from left, Tobin Munsat, Gail Eaton, John Desandro, Martha Redi, Nathaniel Fischh, Richard Majeski, Samuel Cohen, Charles Gentile, John Schmidt, Gennady Shvets, Robert Woolley, and John Parker. See page 2 for complete listing of honorees and their inventions.

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## Patents Issued in Fiscal Year 2000

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Method and System to Directly Produce Electrical Power Within the Lithium Blanket Region of a Magnetically Confined, Deuterium-Tritium (D-T) Fueled Thermonuclear Fusion Reactor

*Robert D. Woolley*

Method and Apparatus for Measuring Micro Structures, Anisotropy and Birefringence in Polymers using Laser Scattered Light

*Boris Grek, Joseph Bartolick, and Alan D. Kennedy*

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## Patents Applied for in Fiscal Year 2000

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Energetic Ions for Sterilization from High Energy for Sterilization

*John A. Schmidt*

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## Inventions Disclosed in Fiscal Year 2000

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Maintain Closed Flux Surfaces in FRC (Field-Reversed Configuration) during RMF (rotating magnetic field) Experiments

*Samuel A. Cohen and Richard D. Milroy*

High Throughput, High Field-of-view Imaging Lens

*Tobin L. Munsat*

Ionization Enhancement in the Hall Thruster by Locating an Absorbing Electrode at the Sonic Transition

*Amnon Fruchtman, Nathaniel Fisch,  
and Yevgeny Raitses*

Cylindrical Geometry Hall Thruster

*Yevgeny Raitses and Nathaniel Fisch*

Particle Bunch Compressor Based on Counter-propagating Laser Beams

*Gennady Shvets and Nathaniel Fisch*

Visual Tritium Imaging System

*Charles A. Gentile, Stewart Zweben, and John Parker*

Segmented Arc Furnace Cathode

*Stewart Zweben and Max Karasik*

AC Sweeping of Liquid Metals for High-Power Density Target Applications

*Richard P. Majeski*

Stabilization of External Kink by a Conducting Wall in Compact Quasi-axially Symmetric Stellarators

*Martha Redi*

Universal Nut Drive and Attachment Tool

*John Desandro, Bob Herskowitz, and Ken Lincoln*

## HOTLINE

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*PPPL Deputy Director Rich Hawryluk (left) congratulates PPPL inventor John Schmidt at the Patent Dinner.*



*John Desandro displays the certificate he received at the Patent Dinner. With Desandro is his wife, Mary.*

## Patent

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license inventions for royalties, as well as provisional patent applications — a type of application created in 1996. “The Provisional Patent Application is much less formal than a regular patent application, and essentially consists of a detailed description of the invention and the appropriate form and a modest filing fee. It was designed to enable individual inventors and not-for-profit organizations to obtain patent protections for up to one year at a low expense,” said Meixler. “If a regular patent application is filed within one year of the date of the initial filing, the initial filing date is retained, which is important for certain foreign filing rights.”

Closing on a humorous note, Meixler translated terms used in some scientific papers that are filed as part of a Provisional Patent Application. For instance, the phrase, “It has long been known” really means, “I didn’t look up the

original reference.” “While it has not been possible to provide definite answers to the questions” translates to “An unsuccessful experiment, but I still hope to get it to work.” And, “Thanks are due to Joe Blotz for assistance with the experiment and to Cindy Adams for valuable discussions” means “Joe Blotz did the work and Cindy Adams explained to me what it meant.”

Following Meixler’s remarks, PPPL Deputy Director Rich Hawryluk handed out the certificates to the inventors. “I always view the Patent Dinner as an opportunity to get together with friends from the Laboratory and view their accomplishments. This is the time to celebrate with everyone in this audience,” said Hawryluk.

A special thanks goes to the members of the PPPL Committee on Inventions, C.Z. Cheng, David Cylinder, Philip Efthimion, Terry Greenberg, Rich Hawryluk, Steve Jardin, Henry Kugel, Lewis Meixler, Carol Phillips, John Schmidt, Hironori Takahashi, Michael Williams, and Ed Winkler. ●



*At the Patent Dinner celebration are, from left, Terry Greenberg (left) and Lewis Meixler; a group enjoying the dinner; and honoree Charlie Gentile (center) talking to other inventors and guests before the dinner. To the right of Gentile is his wife, Leanne.*



# Student Fox Receives Shenstone Award

**W**ill Fox, a Princeton University student who worked on liquid metal experiments at PPPL for his senior thesis, is among this year's recipients of the Allen G. Shenstone Prize in Physics. The prize is awarded to graduating seniors from Princeton's physics department who have done excellent work and who have senior theses in experimental physics.

PPPL physicist Hantao Ji presented the award to Fox on June 4 during the physics department's Class Day Reception on main campus. Ji, who is Fox's advisor, is the Principal Investigator on the liquid metal experiments. In the experiments, Fox studied magnetohydrodynamic effects on gallium surface waves. "Will is a brilliant student. I have really enjoyed the days and nights I spent working with him. I wish him good luck in Nepal and look forward to his career in plasma physics," said Ji.

Fox graduated last month and intends to spend next year teaching physics at the Rato Bangala School in Katmandu, Nepal. Following that, he will attend the Massachusetts Institute of Technology to continue his plasma physics studies at the graduate level. Congratulations, Will! ●



Will Fox

## One More Staff Picnic!

**L**ast chance! This year's final Bar-B-Que and Swim Party for staff at the home of PPPL Director Rob Goldston and his wife, Ruth, is scheduled for Thursday, July 26. The July 31 picnic is now being combined with the July 26 event.

The picnic will be held at the Goldston home, 149 Bouvant Drive, Princeton, from 4 P.M. to 7 P.M. (rain or shine). Bring a towel and a swim-suit. Please R.S.V.P. to "humanres@pppl.gov" as soon as possible.

The picnics are intended for PPPL staff, Department of Energy Princeton Area Office staff, and long-term visitors. Unfortunately, family members cannot be accommodated at this time. ●

