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American Physical Society Invites Salt Lake City to Discover Plasma

*Free science events help students, teachers and the public learn more about plasma,
the fourth state of matter*

SALT LAKE CITY—The Plasma Sciences Expo—the first event of its kind in Salt Lake City and planned as the biggest celebration of plasma physics for students in the region—presents teachers, students and the general public with an opportunity to explore plasma, the 4th state of matter.

Plasma is the energy source of the sun and other stars, and scientists from around the world are conducting plasma research to help create that same power on earth. During the third week of November, over 1,500 plasma scientists will be gathering for the American Physical Society's Division of Plasma Physics 53rd Annual Meeting at the Salt Lake City Marriott Downtown. Plasma scientists will be at the exhibitor booths to speak with students and the public about science, research and technology, as well as their own experiences in the "hot" career field of plasma physics.

The Plasma Sciences Expo will be open for school groups on November 17 and 18 from 8 a.m. to 2 p.m., and for the general public on November 17 from 6 to 8 p.m. The expo is a free event sponsored by the American Physical Society's Division of Plasma Physics, and the U.S. Department of Energy.

Those attending this hands-on science expo will be able to create arcs of lightning, observe their fluctuating body temperature, and use magnets to manipulate glowing plasma and crush soda cans. Participants will also learn how to confine plasma in a fusion device by playing a video game. They can also use an ultraviolet light source and an emission spectrometer to test how well their sunglasses and different sun block lotions block the UV spectrum; and they will even explore optics using a laser.

In addition to the expo, local teachers are invited to attend Science Teachers Day on Tuesday, November 15 from 7:30 a.m. to 4 p.m., where they will spend the morning learning about the fundamentals of fusion energy and plasma science. The remainder of the day is spent in workshops of their choosing, focusing on such subjects as the nature of matter, cosmology, lasers, electricity and magnetism, Newton's Laws, and mathematical applications. The workshops align with national science standards and the Utah State Core Curriculum. There is no charge for this event, but online registration is required and available on the event website at <http://fusioned.gat.com/dppoutreach/>. Science Teachers Day includes continental breakfast, lunch and raffle prizes.

Until recently, plasma was rarely mentioned in high school textbooks, though matter in the plasma state makes up 99 percent of the visible universe. Our sun, stars, northern lights, solar flares and lightning bolts are all examples of naturally occurring plasmas. Man-made plasmas are used for lighting (fluorescent lights), sterilizing medical equipment, welding, manufacturing computer chips, fusion energy research, and some medical surgery procedures.

To learn more about these free educational events, visit the Discover Plasma website at <http://fused.gat.com/dppoutreach/>.

About the American Physical Society, Division of Plasma Physics

Over 1,500 physicists gather annually to discuss the advancement of plasma science, science education and the science community. Division members represent academic institutions, national laboratories, and industry from around the world. The goal of the Plasma Sciences Expo and Science Teachers Day is to increase community awareness of science and inspire students to pursue science-related careers.

Photo Caption:

Research Scientist Rick Lee from General Atomics asks students to use special glasses to examine a plasma he has created, at the 2010 Plasma Sciences Expo in Chicago.

