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American Physical Society Invites Atlanta to Discover Plasma

Free plasma science event expected to draw thousands for exhibits and hands-on activities

ATLANTA—The Plasma Sciences Expo is the first event of its kind in Atlanta and the biggest celebration of plasma physics for students in the region, offering teachers, students and the general public an opportunity to explore plasma, the fourth state of matter, at this free event.

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. The sun and other stars consist of plasma heated by nuclear fusion, and scientists from around the world are conducting plasma research to help harness fusion power here on earth.

During the first week of November, over 1,500 plasma scientists will be gathering for the American Physical Society, Division of Plasma Physics 51st Annual Meeting at the Hyatt Regency in downtown Atlanta. Plasma scientists will be at the exhibitor booths during the Expo 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 for school groups has reached capacity, but the event is open to the general public on Thursday, November 5, from 6 to 8 p.m. The expo is a free event sponsored by the American Physical Society 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 can learn how to confine plasma in a fusion device by playing a video game. They will also use an ultraviolet light source and an emission spectrometer to test how well their sunglasses and different sunblock lotions block the UV spectrum. 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 3, 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, and Newton's Laws. The workshops align with national science standards and the Georgia Performance Science Standards. 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 a continental breakfast, lunch and raffle prizes.

To learn more about these free educational events, visit the Discover Plasma website at http://fusioned.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:
Dr. David Mikkelsen, a scientist from Princeton University's Plasma Physics Laboratory, and a young student examine plasma properties in a half-coated fluorescent light bulb at the 2008 Plasma Sciences Expo in Dallas. This year's expo will be held in Atlanta at the downtown Hyatt Regency. The event is open to the public Thursday, November 5, from 6 to 8 p.m.

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