

## American Physical Society Invites Philadelphia to Discover Plasma

**Summary:** During their fall meeting in Philadelphia, the American Physical Society Division of Plasma Physics will be engaging local teachers and students in the study of plasma, the fourth state of matter, through teacher workshops and in-school visits.

Philadelphia – We live on a planet where we are surrounded mainly by matter in the familiar states of solid, liquid and gas. But many of us are not aware of a fourth state of matter – plasma. In Philadelphia this is about to change. During the week of October 30, the American Physical Society – Division of Plasma Physics, as part of its yearly meeting, has scheduled educational events to encourage teachers and students to explore plasma.

Until recently plasma was rarely mentioned in high school textbooks, though matter in the plasma state makes up 99% of the visible universe. Our sun, stars, northern lights, solar flares, lightning bolts are all examples of naturally occurring plasmas. Furthermore, plasma is used in manufacturing computer chips and sterilizing medical equipment. It is a component of fluorescent lights and some television screens. And it is essential to fusion research experiments, which could lead to a new source of energy.

On “Science Teachers Day,” Tuesday, October 31, local teachers will arrive at the Philadelphia Downtown Marriott to receive a special day of training. Over 90 teachers will attend morning and afternoon workshops about plasma and related science. Topics range from space weather, to fluid instabilities, to fusion demonstration activities for the classroom.



Teachers will learn about plasma, its mystery, beauty and power, at Science Teachers Day, October 31. Scientists and professionals from around the country will bring plasma science to local classrooms throughout the week of the American Physical Society - Division of Plasma Physics Meeting in Philadelphia.

Scientists will also be visiting local schools. Teams of specialists from Princeton Plasma Physics Laboratory, General Atomics in San Diego, the University of Wisconsin’s “Wonder of Physics” program, and the Contemporary Physics Education Group will engage local students with hands-on demonstrations of plasma-related physics.

Other laboratories, industries, academic institutions, and government agencies contributing to this plasma education week include: University of California, San Diego; Lawrence Livermore National Laboratory; MIT’s Plasma Science and Fusion Center; Oak Ridge National Laboratory; Oak Ridge Institute for Science Education; U.S. Department of Energy’s Office of Fusion Energy Sciences, U.S. Department of Energy Defense programs, and many more.