

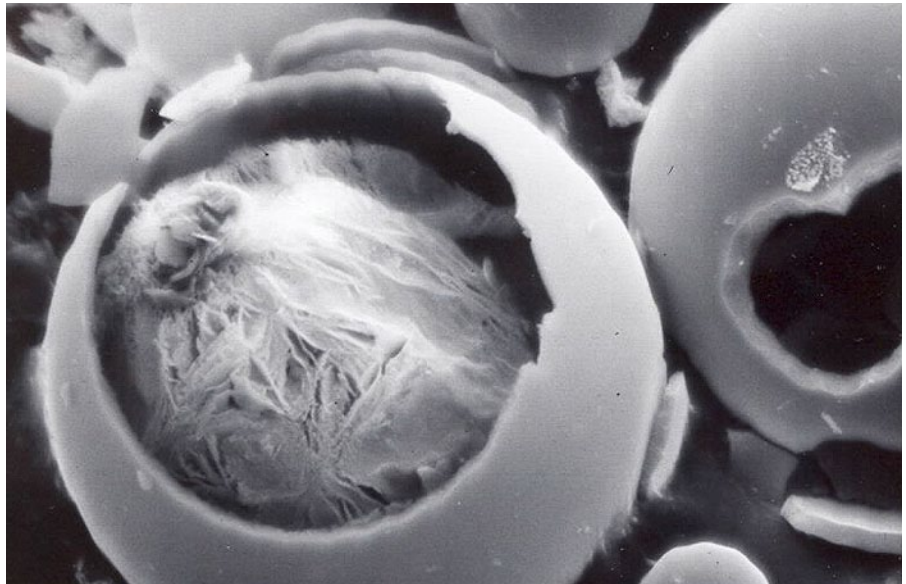
Media Contacts: SRNL – Angeline French
(803) 725-2854

angeline.french@srnl.doe.gov

For Immediate Release

SRNL Microspheres Win Top Honors

AIKEN, S.C. (July 16, 2012)
– Savannah River National Laboratory (SRNL) captured top honors at a symposium spotlighting some of the most innovative research being conducted by the researchers supporting the U.S. Department of Energy's National Nuclear Security Administration (NNSA) .



Dr. George Wicks of SRNL was presented the top “Award of Excellence” for the poster presentation on SRNL’s porous-walled hollow glass microspheres at the NNSA Laboratory Directed Research and Development (LDRD) Symposium on Discovery and Innovation for National Security. The poster described how development of the microspheres began with funding from the Savannah River Site Plant-Directed Research and Development (PDRD) program, which funds research with potential to benefit the Site’s NNSA Tritium Programs mission.

The poster, titled “Porous-walled Hollow Glass Microspheres....from PDRD/LDRD to an Explosion in New Technologies,” went on to describe how the development of the glass microspheres branched into multiple directions, as the tiny spheres showed usefulness in a variety of applications, and generated about a dozen new initiatives and programs, in areas of energy, environmental remediation, homeland security and medicine. These initiatives have attracted funding from multiple sources, including the SRNL LDRD Program, which supports cutting edge science and engineering in areas that will provide long term benefit to the U.S. Department of Energy (DOE) and the nation.

Development of the porous-walled hollow glass microspheres has built on SRNL’s long-time expertise in the development of glass formulas for multiple uses, including the encapsulation of radio-

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active waste for safe, stable disposal. The microspheres won a 2011 R&D 100 Award from R&D Magazine, as one of the 100 most technologically significant new products of the year.

Hollow glass microspheres have been used for years in lightweight filler material, insulation, abrasives and other applications. SRNL's porous-walled hollow glass microspheres are unique because of a network of interconnected pores in the microsphere walls, which allow the tiny microspheres to be filled with, hold and release gases and other materials. Because the glass microspheres provide a protective environment, or cocoon, for their contents, they can be used to hold reactive or flammable absorbents or stored materials, including solids, liquids or gases. This has the potential to provide a safe method of handling, storing or transporting a variety of materials.

Each microsphere is about 50 microns in diameter, about half the width of a human hair. SRNL originally developed the microspheres as a solid-state storage method for hydrogen as part of the Lab's support of DOE's nuclear defense mission.

The symposium featured approximately 30 posters spotlighting research and development projects at Sandia National Laboratories, Los Alamos National Laboratory, Lawrence Livermore National Laboratory, Nevada National Security Site, Y-12 National Security Complex, Pantex Plant, and the Kansas City Plant.

SRNL is DOE's applied research and development national laboratory located at the Savannah River Site. SRNL puts science to work to support DOE and the nation in the areas of environmental stewardship, national security, and clean energy. The management and operating contractor for SRS and SRNL is Savannah River Nuclear Solutions, LLC, a Fluor Partnership comprised of Fluor, Newport News Nuclear and Honeywell. .

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