# S. Kay Obendorf to Receive the Olney Medal

**S. Kay Obendorf** is the 2009 recipient of the Olney Medal for outstanding achievements in the field of textile chemistry.

Obendorf earned her bachelor's degree in clothing and textiles from Kansas State University, a master's degree in textiles from the University of Illinois, and an MS and PhD in physical chemistry from Cornell University.

Obendorf is a professor in the department of fiber science & apparel design at Cornell University. She is also senior associate dean for research and graduate education in the College of Human Ecology at Cornell. She served in the textiles department at Cornell since 1985, and chaired the department from 1985 to 1995.

## Achievements

Obendorf 's scholarly work has provided critical advances in textile chemistry and fiber science and contributed toward a better understanding of the surface chemistry of fibers and films and their performance. She has made outstanding contributions in the areas of pesticide protective clothing, fiber morphology, detergency, and functional textiles.

Obendorf developed a predictive model for protection and comfort performance of porous protective clothing for nonwoven and woven fabrics; developed novel membranes with engineered pore structures using microporous polymer membranes and electrospun fibrous membranes; and developed antimicrobial membranes based on N-halamine technology as well as electrospinning. Her work in the area of surfactants, detergency, and the underlying chemistry of soils and their interactions with fibers has furthered the basic understanding of the methods and processes of textile finishing and fabric care.

She developed an analytical test method to quantitatively measure the amount of odor-causing chemicals in fabric. Prior to Obendorf's work in this area, methods used to measure the effectiveness of antimicrobial agents did not directly measure the ability to eliminate odor. Her ability to pinpoint within a fiber structure where aroma chemicals were absorbed, the level of absorption, and the changing locations and absorption rate for different aroma chemicals provided the textile industry with a means of defining and upgrading a fabric's "freshness" performance and the consumer with a higher quality textile product.

## Honors and Awards

Obendorf was inducted into the National Textile Center Circle of Excellence in 2005. She received the Outstanding Paper Award from the Journal of Surfactants and Detergents in 2000. In 1989, she was the Austin Lecturer at Iowa State University. She received the Distinguished Service Award from Human Ecology, Kansas State University in 1988, received the Man-Made Fiber Award in 1986, and was the Fiber Society Lecturer from 1985 to 1986.

Obendorf joined AATCC in 1969. She is also a member of the International Textiles and Apparel Association, the American Association of Family and Consumer Science, the American Chemical Society and the American Oil Chemists' Society. She is a member of the Fiber Society and of Committees D13 and F23 of ASTM. A prolific writer, Obendorf has published more than 130 peer-reviewed papers and other works.

## The Olney Medal

Established in 1944 in honor of Louis Atwell Olney, the founder and first president of AATCC, the Olney Medal recognizes outstanding achievement in textile or polymer chemistry or other fields of chemistry of major importance to textile science. The award consists of a gold medal, a scroll, and an honorarium.

Obendorf will deliver the traditional Olney Medal Address May 19 at the AATCC International Conference. Her topic will be, "Improving Personal Protection through Novel Materials."