



**SPECIAL ACHIEVEMENT AWARD
FOR YOUNG INVESTIGATORS IN
APPLIED MECHANICS**

Past Honorees

1998 Mary Boyce
1999 Huajian Gao
2000 Zhaigang Suo
2001 Pedro Ponte Castañeda
2002 None Presented



**2003
Special Achievement Award
for YOUNG INVESTIGATORS
in APPLIED MECHANICS**

Presented to

Professor L. Gate Brinson

In recognition of

**her distinguished contributions to the area
of polymer composites and shape memory alloys**

Presented at

**The Applied Mechanics Division Banquet
The 2003 International Mechanical
Engineering Congress in Washington, DC**

November 18, 2003

Presiding: Pol D. Spanos

ASME/AMD Chair 2003-2004



ASME International



meetings, with focus on characterization and modeling of advanced material systems (including one at this conference). She has been an associate editor for the *ASME Journal of Engineering Materials & Technology* and the *Journal of Intelligent Material Systems and Structures*. She also served on the Structural and Multifunctional Materials Panel for National Materials Advisory Board of the *National Academy of Sciences*. Professor Brinson was the Founder and Advisor of *Preparing Future Engineering Faculty*, professional development group for Northwestern engineering graduate students, which began in 1999. She was one of the Co-developers of new core undergraduate "Engineering First Curriculum" at Northwestern, 1996-present. She is a member of ASME, SES, ASEE, AAUW, SEM, TMS and AAM and has been an invited speaker at many international conferences, universities and research laboratories.

Professor Brinson's research has earned many honors and awards. Among them are:

Alexander von Humboldt Research Fellowship 2000-2001
President of the *Society of Engineering Science* (1999)
DSSG - Defense Science Study Group, Institute for Defense Analysis, 1998-2000
NSF CAREER Award, 1995-99
1997 Honorable Mention, *McCormick Teacher of the Year Award*, Northwestern University
ASEE New Mechanics Educator, 1995
June and Donald Brewer Junior Professor, endowed chair, Northwestern University, 1992-94



Professor L. Cate Brinson

Professor L. Cate Brinson received her Ph.D. in 1990 from Caltech. Subsequently, she received scholarships from the DAAD and the AAUW to pursue postdoctoral studies at the DLR (German Air and Space Agency) in Goettingen, Germany. She joined Northwestern University as an assistant professor in the Department of Mechanical Engineering in 1992. She was promoted to Associate Professor with Tenure in 1998 and Full Professor in 2003, and was given a secondary appointment in the Department of Materials Science and Engineering in 2003. Cate also spent a year as a Visiting Professor at the University der Bundeswehr in Hamburg Germany in 2000-01.

Professor Brinson's main research focus is modeling and characterization of advanced material systems, including polymers and their composites, nanocomposites, microporous metallic foams and intelligent material systems. A major contribution by her is the development of an empirical model for phase transformations in shape memory alloys that has come to be known as the Brinson model. Since then, she has expanded her investigation of these and other materials to explain the role of microstructure and molecular and crystallographic mechanisms on macroscopic mechanical properties.

She has also made significant contributions in service to the scientific and academic engineering community. She served on the board of directors for Society of Engineering Science (SES) for five years and was President in 1999. She has also been an active member of ASME AMD Computing in Applied Mechanics Committee, and has organized several seminal symposia at ASME