

“Quite an Honor”

Karl Gschneidner named to the National Academy of Engineering

BY KERRY GIBSON

ONE WALL OF KARL GSCHNEIDNER'S SPEDDING Hall office is chock-full of honors and awards the Ames Laboratory senior metallurgist has received throughout his distinguished career. But he'll soon have to make room for the biggest honor of them all — the one that names him as a member of the National Academy of Engineering. Gschneidner was one of 64 American researchers and nine foreign associates inducted into the prestigious Academy earlier this year.

“It's quite an honor, considering all the competition,” he says. “There are a lot of good people out there, so I'm glad we made it!”

The National Academy of Engineering is one branch of the National Academies organization that also includes the National Academy of Sciences, the Institute of Medicine and the National Research Council. Established in 1964, the NAE has a fairly exclusive membership with only 1,945 Americans and 184 foreign associates inducted in its 43-year history.

Academy membership honors those who have made outstanding contributions to “engineering research, practice or education, including, where

appropriate, significant contributions to the engineering literature,” and to the “pioneering of new and developing fields of technology, making major advancements in traditional fields of engineering or developing/implementing innovative approaches to engineering education.”

Gschneidner was specifically cited for “contributions to the science and technology of rare-earth materials,” a further acknowledgment of his role as one of the world's foremost authorities in the physical metallurgy and thermal and electrical behaviors of rare-earth materials. An Ames Lab researcher and Iowa State University faculty member

since 1963, he became the first director of Ames Lab's Rare-Earth Information Center when it was established in 1966. He has published over 500 papers in the field, and his research in magnetic refrigeration is widely recognized throughout the world.

Gschneidner is also a Fellow of the American Society for Materials International, The Minerals, Metals and Materials Society and the American Physical Society. He is an honorary member of the Materials Research Society of India and The Japan Institute of Metals.

He is the fourth Ames Laboratory researcher named to the National Academy of Engineering and only the sixth overall with ISU ties. He joins Ames Lab's Nondestructive Evaluation Program Director and fellow Iowa State University Anson Marston Distinguished Professor Bruce Thompson, associate researcher Dan Schectman (Materials Chemistry and Biomolecular Materials), and retired researcher Donald Thompson (Nondestructive Evaluation). Senior chemist John Corbett is a member of the National Academy of Sciences.

While he was aware he'd been nominated for the Academy, Gschneidner says his actual election was a surprise. However, he doesn't expect the “fame” to necessarily be followed by fortune.

“People have asked me if this means I'll be getting the big bucks,” he says. “Actually, it's going to end up costing me \$200 a year for the membership,” though he adds with a chuckle that he'll get a discount because of his age. (He turns 77 in November.)

And don't expect him to rest on his laurels. He still maintains a full schedule, splitting his time between the research lab, the library and the lecture circuit.

“I plan to keep doing the same things — looking for new things and trying to figure out what makes them work,” he says. “It's what keeps me young.”

He also credits those working with him, particularly senior scientists Vitalij Pecharsky and Alan Russell in recent years, for much of his success.

“It's like an orchestra conductor or the manager of a ball team,” he explains. “They often get the credit, but without all those talented people around them, they wouldn't get far. I've been fortunate throughout my career to be surrounded by top-notch people and to have a wonderful, supportive and understanding wife.”

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Karl Gschneidner