

Annette Loch Bunge is Professor Emeritus of Chemical Engineering at the Colorado School of Mines, which she joined in 1981 as Assistant Professor. She was promoted to Associate Professor in 1985, Professor in 1991, and awarded the title Professor Emeritus in 2005. She continues to work on research and as a mentor to graduate students, postdoctoral fellows and faculty. Professor Bunge has B.S. and Ph.D. degrees in Chemical Engineering from the State University of New York at Buffalo and the University of California, Berkeley, respectively. She has been Principal Investigator or a significant contributor on research projects totaling more than \$10 million. She has published more than 60 refereed papers, 20 book chapters and 130 conference proceedings, and she has given invited lectures at international conferences in Europe, Australia and South America.

Dr. Bunge's academic career has been characterized by transitions. She was the only female student in all of her undergraduate chemical engineering classes at the University of Oklahoma (1972 – 1975) and at the State University of New York at Buffalo (1975-1976), where she graduated summa cum laude. She was the third female to receive a Ph.D. in Chemical Engineering at Berkeley. At Mines she was the first female professor in the Chemical Engineering Department, and the first female Assistant Professor at the school to achieve the rank of Professor.

In research Dr. Bunge adapted to changing scientific needs by moving from her doctoral work on enhanced oil recovery to her focus for most of the last 25 years: absorption of chemicals into human skin. She was the principal investigator on the first research contracts to Mines from the National Institutes of Health and the Food and Drug Administration. The goal of this research is to understand how skin behaves as a barrier to chemicals contained in liquids, particulate materials, and solid residues that contact the skin as medicines or during environmental or occupational exposures. This research is multidisciplinary and Dr. Bunge has established long-standing collaborations with scientists and engineers at Mines and around the world, including pharmaceutical chemists, dermatologists, toxicologists, statisticians, mathematicians and computer scientists. She provides expert opinion on dermal absorption and risk assessment to government agencies in the United States, Europe and Canada. In the United States, the risk assessment process required by the Environmental Protection Agency at Superfund sites includes calculations based on her research. In support of work like this, she organized and currently directs the Center for Environmental Risk Assessment at Mines.