

Dr. Howard is Professor Emeritus and Senior Lecturer of the Department of Materials and Metallurgical Engineering at the South Dakota School of Mines and Technology in Rapid City, SD. He served as The Minerals, Metals, and Materials (TMS) President and Financial Planning Officer and currently serves on the TMS Foundation Board of Trustees.

Dr. Howard received his BS and PhD degrees in Metallurgical Engineering from the Colorado School of Mines in 1967 and 1971. In 1973 he achieved Profession Engineer licensure in South Dakota in Chemical Engineering and remains actively licensed. He continuously held fulltime faculty appointments from 1971 to 2014 after which he has maintained a fulltime presence on campus as Emeritus Professor accepting periodic part time appointments as a Senior Lecturer. He primarily taught metallurgical thermodynamics, metallurgical transport phenomena, numerical methods, steelmaking, and high-temperature extractive processing.

TMS has been Dr. Howard's professional society home throughout his professional career becoming a member as a student. He has served TMS on many committees including Nominating, Professional Registration, Audit, Retirement, Waste Minimization and Recycling, Education, Physical Chemistry of Extractive Processes, Student Affairs, and EPD Publications. He has presented at the TMS Annual Meeting short courses and many papers; served as key reader for and published in Met Trans, and co-chaired many technical sessions. He has also served on the Board of Directors of Alpha Sigma Mu, the EPD Scholarship Selection Committee, and the AIME's Hoover Award Selection Committee.

Dr. Howard has held leadership and service positions at his university including Chair of the Department of Materials and Metallurgical Engineering, Faculty Senate Chair and Chair of the Faculty, and Material Advantage Advisor. He is a recipient of the AIME Mineral Industry Education Award and the SDSM&T Presidential Award for Outstanding Service; former President of Group V Metals, a technology services and licensing company; and a volunteer in numerous community organizations. He is also been a member of ASM, the American Ceramic Society, the Association for Iron and Steel Technology, and Sigma Xi Research Society.

His early research included the thermodynamics properties of liquid metallic solutions, chlorination processing of refractory metals, materials for geothermal applications, stress corrosion cracking of Zircaloy, and simultaneous sequestration of mercury and SO₂. More recent research focused on topics including the production of ultra-pure Ge and enriched Cr processing related to the nation's Sanford Underground Research Facility (SURF), advanced manufacturing processes for functionally graded material via direct laser deposition, and friction stir processing and welding.

Dr. Howard has received visiting faculty appointments to Oak Ridge National Laboratory, Stanford Research Laboratory, and Kerr-McGee Technical Center; served as a technical auditor on the Yucca Mountain Nuclear Waste Repository; holds patents on beryllium replacement alloys; and provided technical consultation for industrial firms, universities, and governmental agencies.

Bio Stanley M. Howard

The American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME) invited Dr. Howard to be interviewed for AIME Oral Histories. That interview should be posted in late 2020 and provides details on Dr. Howard's formative years.

<http://aimehq.org/programs/oralhistories>