

James L. Dye was the first chemist in Michigan awarded membership in the National Academy of Sciences and was for a long time the only MSU professor in the American Academy of Arts and Sciences. He is most well-known for his work with alkali metals, which were historically considered dangerous to use and store. Dye's research group developed and commercialized ways to make them safer to handle, allowing them to be used in a variety of applications. He also discovered two new classes of compounds of unusual interest: the alkalides and the electrides. Through his work, Dye greatly improved the understanding of the nature of the species formed when alkali metals dissolve without oxidation. At age 70 he received the highest honor given for inorganic chemistry in the United States awarded by the American Chemical Society. At age 78 he co-founded SiGNa Chemistry Inc., a company based on his work of transforming alkali metals into safe powders. His illustrious career produced more than 225 research papers and coverage in numerous newspapers, including The New York Times. Dye earned his Ph.D. in physical chemistry at Iowa State University and began teaching at MSU in 1953. He retired in 1994, but continued to mentor undergraduates as an Emeritus Professor for 20 years.