

In his paper published in the Journal of the Franklin Institute in 1955, Dr. Kroll stated that, "in any invention of importance one is first to examine the educational background of the inventor and his mental preparation and development". William Kroll's educational background in metallurgy started as a small child. His father was a blast furnace manager and his grandfather an operator of an iron ore mine. He wrote of an early recollection: "a far-away picture still remains in my mind, when, as a child, in the darkness of a cold morning I was taken out of bed to light a new blast furnace with a bunch of cotton, impregnated with burning kerosene and fastened to the top of a long pole".

W. J. Kroll was a highly independent researcher who focused on industrial problems in a creative and innovative way. He was indeed a visionary in the process metallurgy field. He believed in the sound application of physical science principles and had a healthy regard for safety while conducting his experiments.

William J. Kroll was awarded the following honors for his outstanding work:

- Student Medal - Technischen Hochschule
- Perkin Medal - Society of Chemical Industry
- Francis J. Clamer Medal - Franklin Institute
- James Douglas Medal - American Institution of Mechanical Engineers
- Beyn Medal - Deutsche Gesellschaft Fur Metallkunde
- Albert J. Sauveur Award - American Society for Metals
- Gold Medal - American Society for Metals
- Castner Medal - Society of Chemical Industry (Great Britain)