

## Transcribed Excerpt from Biography of Clair Cameron Patterson, 1998

Claire Patterson was an energetic, innovative, determined scientist whose pioneering work stretched across an unusual number of sub-disciplines, including archeology, meteorology, oceanography, and environmental science—besides chemistry and geology. He is best known for his determination of the age of the Earth. That was possible only after he had spent some five years establishing methods for the separation and isotopic analysis of lead at microgram and sub-microgram levels. His techniques opened a new field in lead isotope geochemistry for terrestrial as well as for planetary studies. Whereas terrestrial lead isotope data had been based entirely on galena ore samples, isotopes could finally be measured on ordinary igneous rocks and sediments, greatly expanding the utility of the technique.

While subsequently applying the methodology to ocean sediments, he came to the conclusion that the input of lead into the oceans was much greater than the removal of lead to sediments, because human activities were polluting the environment with unprecedented, possibly dangerous, levels of lead. Then followed years of study and debate involving him and other investigators and politicians over control of lead in the environment. In the end, his basic views prevailed, resulting in drastic reductions in the amount of lead entering the environment. Thus, in addition to measuring the age of the Earth and significantly expanding the field of lead isotope geochemistry, Patterson applied his scientific expertise to create a healthier environment for society.