Discovered in a museum in 1801, niobium was named after Niobe, the mythological daughter of Tantalus (the metal is chemically related to Tantalum). Occurring in the earth's crust in proportions of about 20 parts-per-million, niobium is used as an alloying agent with iron and nickel. It has commercial uses in atomic reactors and has superconductive properties when alloyed with tin or aluminum.

In many places niobium is known as columbium since it was originally "discovered" in a mineral named columbite. However, careful subsequent analysis indicated that the "new" element was actually Tantalum. The rediscovery of the element we know now as niobium was not even associated with columbium until after the official statistics were in.

Pure niobium looks much like steel but resists corrosion better due to a thin coating of oxide that forms on all exposed surfaces. The only acid that attacks Nb at room temperature is HF. Above 200° the metal becomes more reactive.

Contributors

- Stephen R. Marsden (ChemTopics)