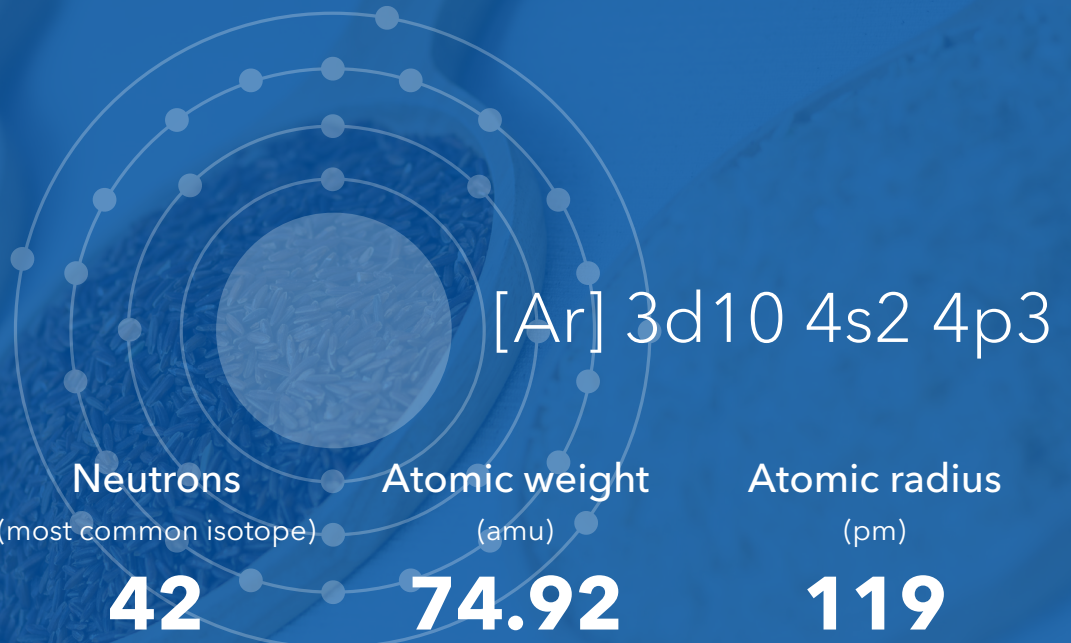


Arsenic (As)



Arsenic is an element that belongs to the group of metalloids, like boron and silicon. This means that it has some properties of metals as well as non-metals. It occurs in nature in its pure elemental form as well as in several minerals together with other elements. Arsenic has many industrial uses, such as a semiconductor doping agent, a poison, a part of insecticides and antifungal agents, and providing the blue colour to pyrotechnics.

As
Arsenic



Functions/Health effects:

Arsenic is toxic to humans in all its forms. However, by far the most toxic is the inorganic form of arsenic, which results from industrial use. Arsenic in this form is toxic to multiple organs, causes epigenetic changes in the body and is carcinogenic. Historically, arsenic was often used as a poison because it can be lethal with a single dose.

Sources:

Arsenic occurs naturally in most soils in small amounts, and it may accumulate in certain plants. By far the biggest health risk, however, is contaminated drinking water which contains the highly toxic inorganic form of arsenic. The less dangerous organic form is found mostly in seafood such as fish and shellfish. Monitoring arsenic in our environment is crucial for our health.

Did you know that?

At normal atmospheric pressure, arsenic sublimates directly into vapor without going through a liquid phase. High pressure is required to melt arsenic.

Although its toxic properties are well known, it is still widely debated whether arsenic could be an essential trace element for humans, specifically in metabolism of amino acid methionine. As with everything, the dose makes the difference.

Food
division

