

especially as the product of volcanoes. It is a very abundant principle, and, uniting with the metals, produces many compounds; it is also found in almost all animal and many vegetable products.

Selenium was discovered by Berzelius, but its quantity in nature is so small, that it is difficult to say what purpose it can have to accomplish. It is usually combined with sulphur. Selenium forms two acids with oxygen, and a deleterious gaseous compound, hydroselenic acid, with hydrogen.

Having explained the characters of the non-metallic elementary principles, we must now proceed to a consideration of those which are metallic. Of these there are forty-one, and they are usually found in combination with other metals, acids, oxygen, or sulphur, from which they are separated by fusion or by the voltaic battery. They are differently classed by chymists, but the order in which they are mentioned is not a matter of much importance in our inquiry.

Arsenic sometimes occurs native, but it is usually in combination with cobalt or iron. The white arsenic of commerce is not the pure metal, but contains oxygen, and is the arsenious acid. This and the arsenic acid are known for their extremely poisonous qualities. Pure metallic arsenic has a bright bluish-white colour, a crystalline texture, and is very brittle. When cold, it has no smell; but its vapour has the odour of garlic, by which the metal may be always distinguished.

Antimony was discovered by Basil Valentine, in the fifteenth century, and is said to have received its name from the circumstance that several monks were killed by taking it as a medicine. It is sometimes found native, but more frequently as a sulphuret. The metal has a bluish-white colour, considerable brilliancy, and is very brittle. The oxydes of antimony are used in medicine.

Tellurium, chromium, uranium, vanadium, molybdænum, tungsten, titanium, and columbium, are not abundant in nature, and, excepting chromium, which is sometimes used in the preparation of colours, are useless in the arts; the mere mention of their names will therefore be sufficient.

Potassium is the base of that well-known alkaline substance potash, but is never found in its metallic state on account of its great affinity for oxygen. Potassium has a white colour and a lustre resembling that of polished silver.