

exception of mercury, which is both liquid and solid within the range of terrestrial temperature at the surface, all solid.

Thirteen of these are metallic or metalloid bodies, which unite with oxygen to form the earths and alkalies, viz., sodium, potassium, lithium, aluminum, silicium, yttrium, glucinum, thorinum, calcium, magnesium, titanium, strontium, barium.

Twenty-nine are what are commonly called metals; viz., manganese, zinc, iron, tin, cadmium, which decompose water at a red heat; and arsenic, antimony, copper, molybdenum, uranium, tellurium, chromium, cerium, nickel, vanadium, cobalt, lead, tungstenum, titanium, mercury, columbium, bismuth, osmium, silver, palladium, rhodium, platinum, gold, iridium, which do not decompose water.

“With the metallic and non-metallic bodies in the previous lists oxygen enters so generally into combinations, which yield solid compounds, and in such large proportions, especially with the earthy and alkaline metalloids, that we may venture even to say that one half of the ponderable matter of the globe is composed of oxygen gas. The speculations, to which this conducts as to the concentration from a gaseous condition of the matter of the planetary system, seem to be in agreement with the astronomical views of Herschel and Laplace, but are perhaps beyond the range of geology, which considers not the origin of the globe, but its successive changes of condition.” *

Table of the Proportions per cent. of Oxygen in certain abundant Earths, Minerals, and Rocks,

100 Silica	=	48·4 Silicium	+	51·6 oxygen.
100 Alumina	=	53·2 Aluminum	+	46·8 Oxygen.
100 Magnesia	=	61·4 Magnesium	+	38·6 Oxygen.
100 Lime	=	72 Calcium	+	28 Oxgen.

* Guide to Geology.