BIANCA PETERS

MAGNESIUM

Element Symbol: Mg
Atomic Number: 12

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Magnesium was discovered by Joseph Black, in England, in 1755.

The name originates from the Greek word Magnesia, a district of Thessaly

Magnesium exists in nature as a component of magnesite, dolomite, sea water and lake brines. These are used as sources of magnesium metal.

There are two main uses for magnesite. The first is as feedstock in the production of dead-burned magnesia and for refractory brick use in lining furnaces in the steel industry and non-ferrous metal processing units and cement kilns. The second use is for processing to caustic calcined magnesia which is used principally as a food supplement in agribusiness and in fertilisers as well for fillers in paints, paper and plastics. Raw magnesite is used for surface coatings, landscaping, ceramics and as a fire retardant.

In New South Wales, magnesite at Thuddungra, northwest of Young, occurs as veins and nodules formed by the alteration of mafic rocks by magnesium-rich fluids. The magnesite ore contains 95 to 99% $MgCO_3$ and varies in thickness from 2 to 10 metres. The Thuddungra mine has been in operation since 1935.

Provided by the element sponsor Simone Wallace

ARTISTS DESCRIPTION

Magnesium is a chemical element with the symbol Mg, atomic number 12, and common oxidation number +2. It is an alkaline earth metal and the seventh most abundant element in the Earth's crust, where it constitutes about 2% by mass, and ninth in the known Universe as a whole. This preponderance of magnesium is related to the fact that it is easily built up in supernova stars from a sequential addition of three helium nuclei to carbon (which in turn is made from three helium nuclei). Due to magnesium ion's high solubility in water, it is the third most abundant element dissolved in seawater

Wikipedia: Magnesium. (2011, July 15)

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