

# Determination of the Atomic Weight of Magnesium

## CHEM 101

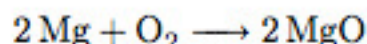
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## 1 Objective

To determine the atomic weight of magnesium via its reaction with oxygen and to study the stoichiometry of the reaction (as defined in 1.1):



### 1.1 Definitions

**Stoichiometry** The relationship between the relative quantities of substances taking part in a reaction or forming a compound, typically a ratio of whole integers.

**Atomic mass** The mass of an atom of a chemical element expressed in atomic mass units. It is approximately equivalent to the number of protons and neutrons in the atom (the mass number) or to the average number allowing for the relative abundances of different isotopes.

## 2 Experimental Data

Mass of empty crucible	7.28 g
Mass of crucible and magnesium before heating	8.59 g
Mass of crucible and magnesium oxide after heating	9.46 g
Balance used	#4
Magnesium from sample bottle	#1