

Molar Mass and the Mole

Molar Mass (M): the mass of 1 mol of a substance (g/mol)

*since 1 mol of C-12 = 12g,

Average atomic mass in u = Molar Mass in g

Ex 1. One mol of O = 16.00 g

Ex 2. One mol of AgI = 107.87+126.90
= 234.77g

Ex 3. Find the M for

a) NaCl

b) CH₄

c) Ca₃(PO₄)₂

Moles to Mass Conversions

$$m = n \times M$$

Ex 4. What mass does a 0.750 mol sample of CO₂ have?

Ex 5. How many mol are in a 23.6 g sample of MgCl₂?

Ex 6. What is the mass of 3.67×10^{24} formula units of K₂O?