C1.1.1
DETERMINATION OF MOLAR MASS

C1.1.1.2
Determination of the molar mass of gases

Determination of the molar mass of gases (C1.1.1.2)

Cat. No.	Description	C1.1.1.2
379 07	Sphere with 2 stopcocks, glass, 1 l	1
SAP R313	Precision Balance Practum 313-1S	1
667 072	Support ring for round flask, 250 ml, cork	1
375 58	Hand vacuum pump	1
665 913	Gas syringe, 100 ml with 1-way stopcock	1
667 197	Silicone tubing, 4 mm diam., 1 m	1
604 434	Silicone tubing, 8 mm diam., 1 m	1
604 510	Tubing connector, 4...15 mm	2
667 186	Vacuum rubber tubing, 8 mm diam.	1
604 491	Vacuum tubes, 6 mm diam.	1
660 998	Minican pressurised gas canister, oxygen	1
661 000	Minican pressurised gas canister, nitrogen	1
660 980	Fine regulating valve for minican gas canisters	2
661 082	Stopcock grease, 60 g	1

At constant pressure and constant temperature, any gas occupies the same volume regardless of the type of atom or the composition. So if we know the volume, pressure and temperature, we can then determine the molar mass of gases. The measurement is conducted in experiment C1.1.1.2 with a glass sphere for weighing gases.