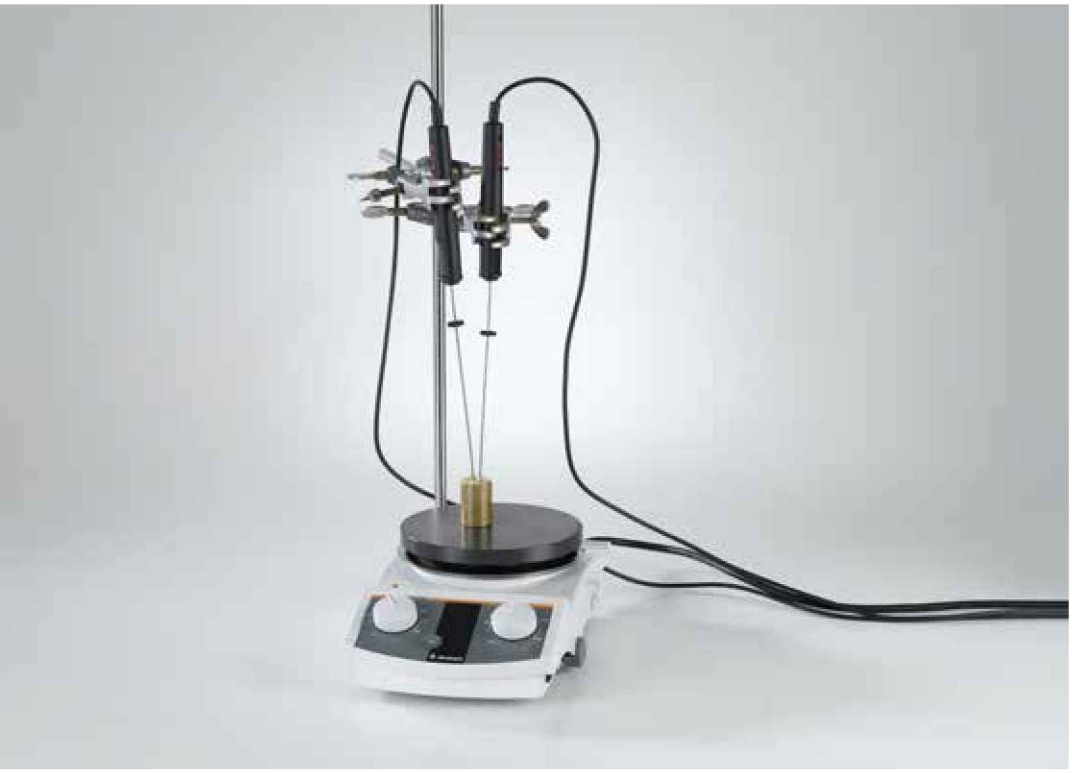


C1.6.2
THE OXYGEN GROUP

C1.6.2.1
Change of modification of sulphur

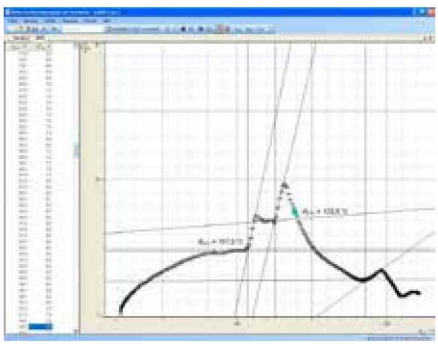
Change of modification of sulphur (C1.6.2.1)

Cat. No.	Description	C1.6.2.1
524 005W	Mobile-CASSY 2 WiFi	1
524 220	CASSY Lab 2	1
524 0673	NiCr-Ni adapter S, type K	1
529 676	Temperature probe, NiCr-Ni, 1.5 mm, type K	2
666 202	Heating block with 2 holes	1
666 203	Set of 20 glass tubes	1
666 8471	Magnetic stirrer with hotplate	1
666 523	Stand rod, 450 x 12 mm diam., M10 thread	1
301 09	Bosshead S	2
666 555	Universal clamp 0...80 mm	2
666 960	Powder spatula, stainless steel, 150 mm	1
667 092	Mortar porcelain 70 mm Ø	1
608 360	Pestle, 54 mm long	1
674 7610	Sulfur, sublimed, 500 g	1
670 2900	Aluminium oxide, 250 g	1
	additionally required: PC with Windows 7 or higher with WIFI or USB connection	1

The oxygen family is the 6th main group in the periodic table. Its elements are also known as "chalcogens", i.e. ore generators. They include the non-metals oxygen and sulphur, the metalloids selenium and tellurium, and the metal polonium.

The elements of this group must acquire two electrons in order to achieve noble gas configuration. Alternatively, they can form two covalent bonds.

Experiment C1.6.2.1 takes a closer look at sulphur. Sulphur has the ability to form chains and rings, and that makes it the element with the most modifications. Those modification changes are studied by differential thermal analysis. For this purpose, a sample of sulphur is heated and its temperature is measured. During the modification changes, the temperature of the sample no longer increases as compared with a control substance. There is no measurable temperature increase until the modification change is complete.



Observing the change of modification of sulphur