

BASIC SCIENCE KITS

CHEMISTRY

OVERVIEW OF THE RANGE OF TOPICS

With about 100 simple experiments, basic aspects of chemistry are handled in the areas of inorganic chemistry, organic chemistry and physical chemistry.

100
EXPERIMENTS



INORGANIC CHEMISTRY

| Topics | Experiments |
|---|-------------|
| Basic experiments/separation experiments | |
| Properties of substances | 3 |
| Mixture of substance | 2 |
| Water | |
| Water as a solvent | 5 |
| Analysis, synthesis and detection of water | 2 |
| Air, gases and their properties | |
| Air and combustion | 2 |
| Preparation, test and use of different gases | 4 |
| Acids and bases | |
| Production, test and effects of acids and bases | 3 |
| Bases - preparation and properties | 4 |
| Salts | |
| Salt formation | 5 |
| Properties and use of salts | 3 |
| Metals and non-metals | |
| Properties and use of metals | 8 |
| Properties and use of non-metals | 4 |

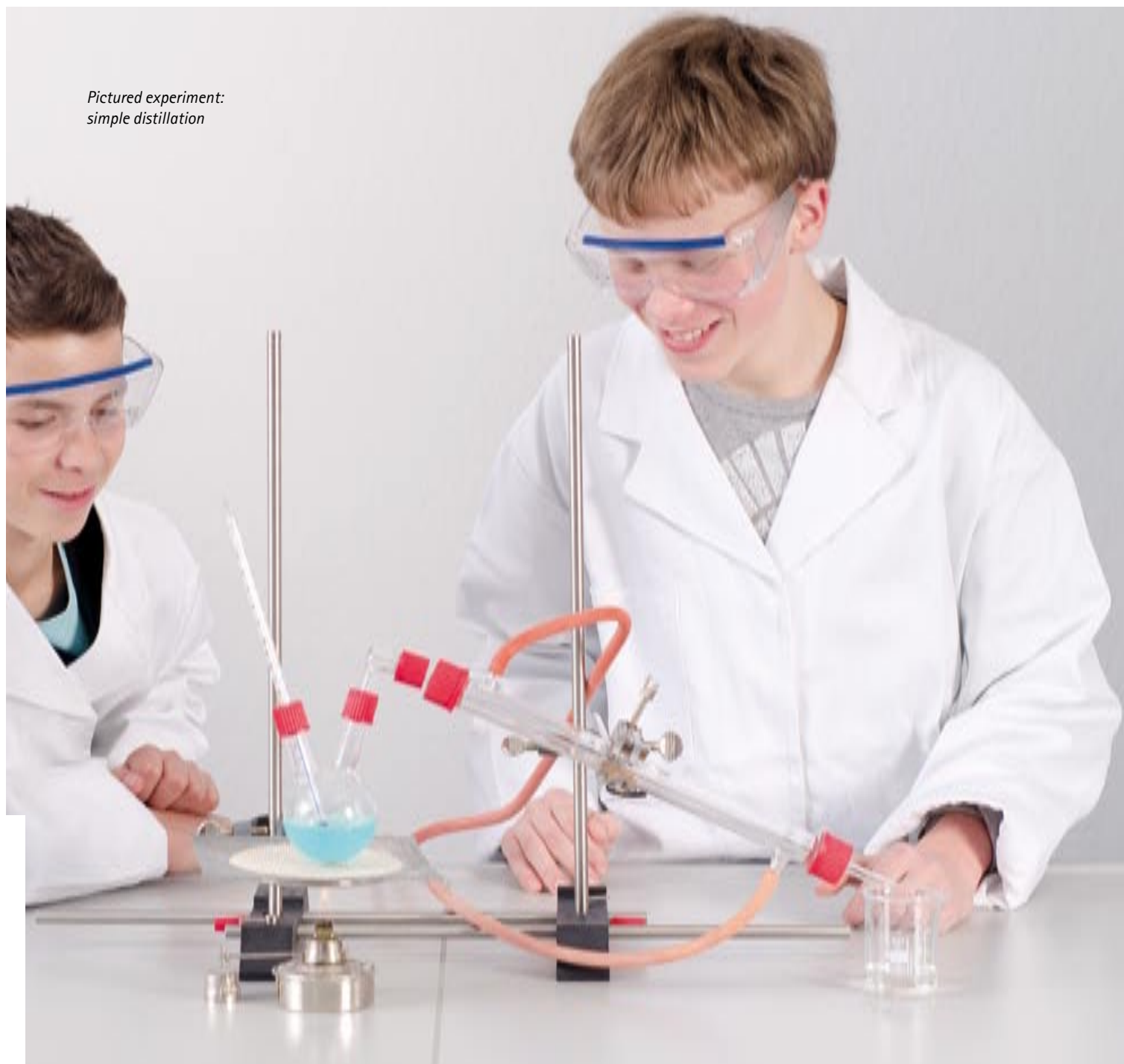
Number of Experiments **53**

ORGANIC CHEMISTRY

| Topics | Experiments |
|---|-------------|
| Preliminary tests | |
| Tests for carbon | 3 |
| Hydrocarbons | |
| Properties of hydrocarbons | 2 |
| Production of hydrocarbons from crude oil | 5 |
| Processing of crude oil fractions | 2 |
| Alcohols, aldehydes and ketones | |
| Production of alcohols | 3 |
| Test for alcohol | 3 |
| Preparation and properties of alcohols | 5 |
| Carboxylic acids and esters | |
| Preparation of carboxylic acids | 3 |
| Properties and use of carboxylic acids | 3 |
| Production and properties of esters | 2 |

Number of Experiments **31**

*Pictured experiment:
simple distillation*



ANALYTICAL CHEMISTRY

Topics

Preliminary tests
Flame colouration
Borax bead

2
1

Chromatography

Paper and thin-layer chromatography
Titration

2
5

Number of Experiments

10

PHYSICAL CHEMISTRY

Topics

Electrochemical reactions
Electrolytic cells

3

Particle motion and energy

Particle motion
Chemical reactions and energy

2
2

Number of Experiments

7