

PHYSICS

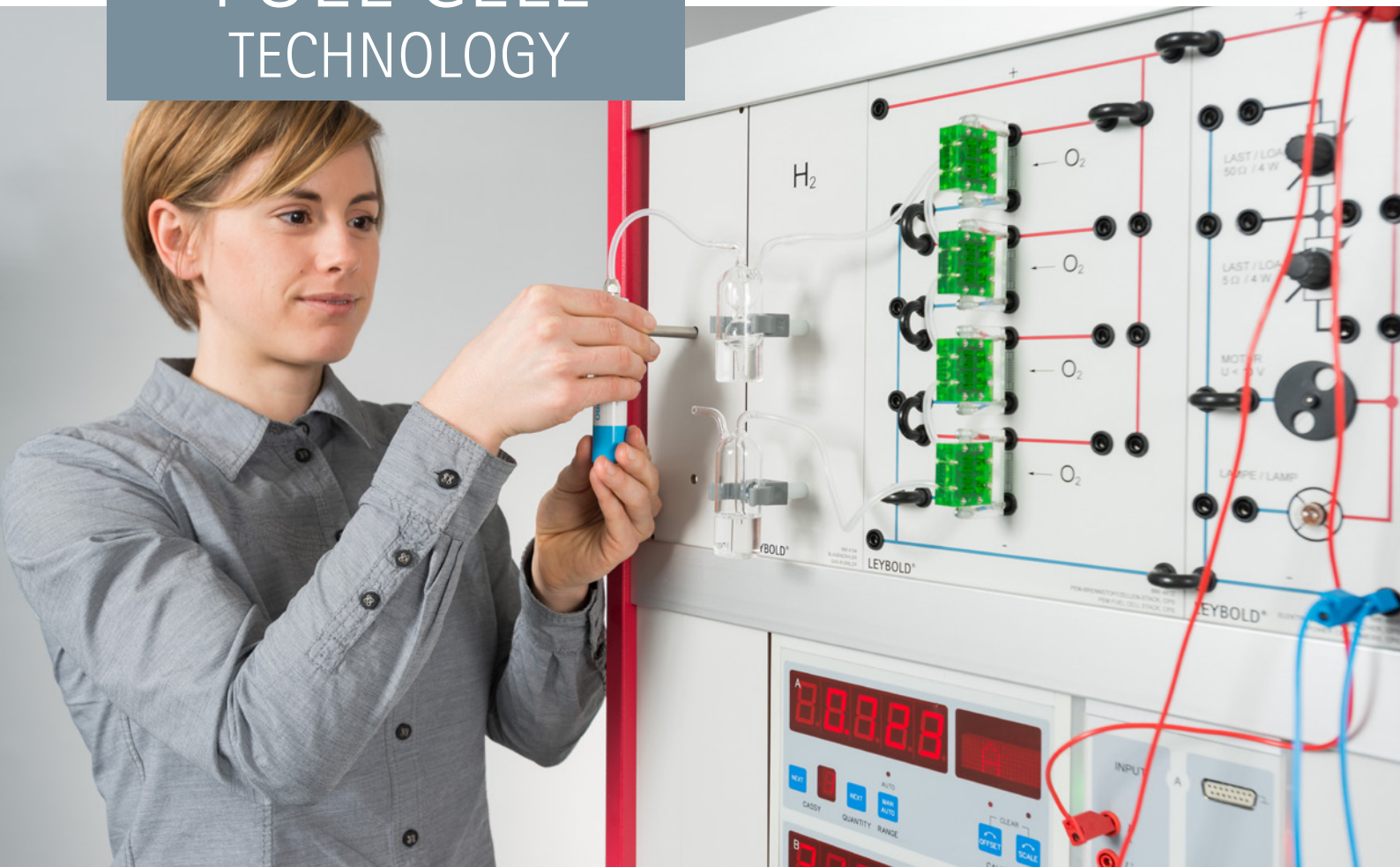
CHEMISTRY
BIOLOGY

ENGINEERING



NEW

FUEL CELL TECHNOLOGY



RENEWABLE ENERGY IN SCHOOLS AND UNIVERSITIES

- Fuel Cell Workstation for students to learn and experiment independently
- Fuel Cell Stack for demonstration experiments for schools and universities

LEYBOLD®

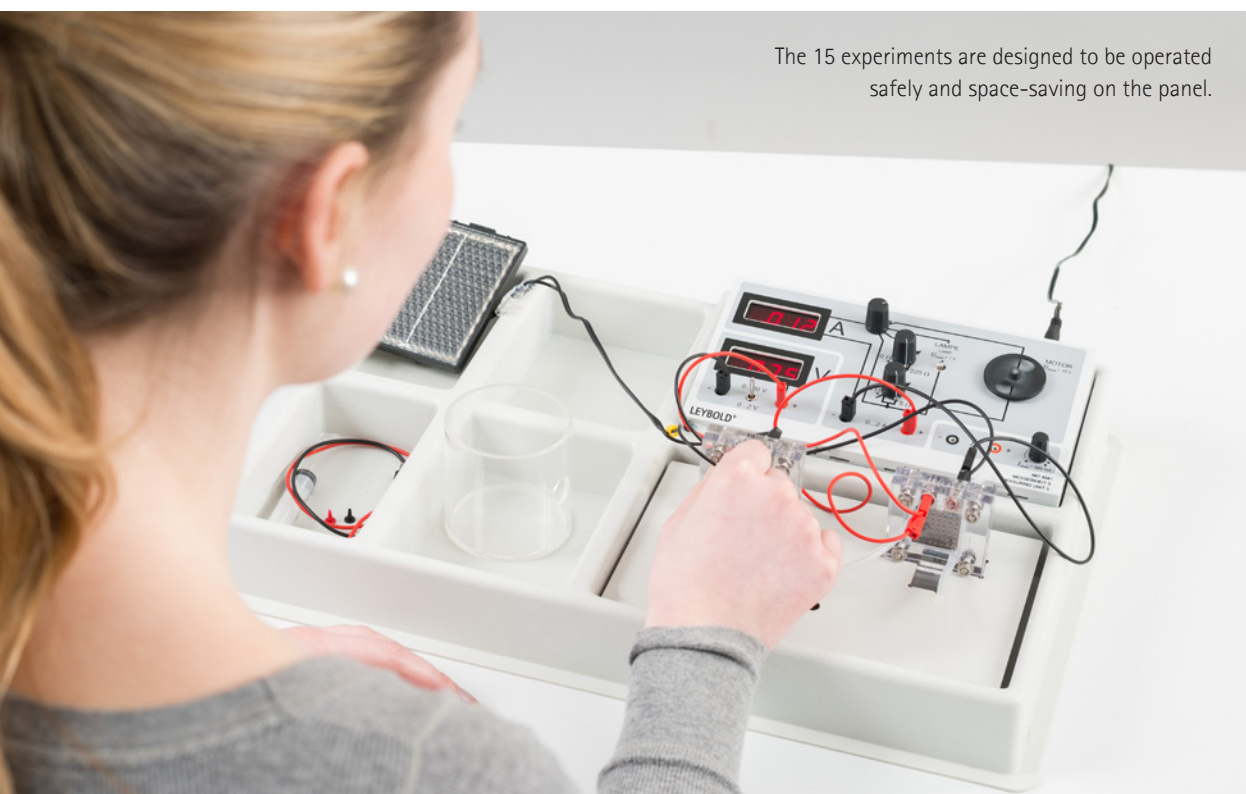
FUEL CELL TECHNOLOGY

HOW DOES IT WORK ?

1. WORKSTATION FOR FOR STUDENT EXPERIMENTS

- Allows solution-oriented learning on renewable energy
- The basic components of a future-proof energy supply are covered:
 - two reversible fuel cells to work as electrolyser or fuel cell, for parallel or series circuit
 - one solar cell
 - one measuring unit with indicators and current supply
- Suitable for student experiments in Chemistry and Physics in secondary schools
- Learning by experimenting: Simple operation and interconnection of the components together with intuitive worksheets and descriptions

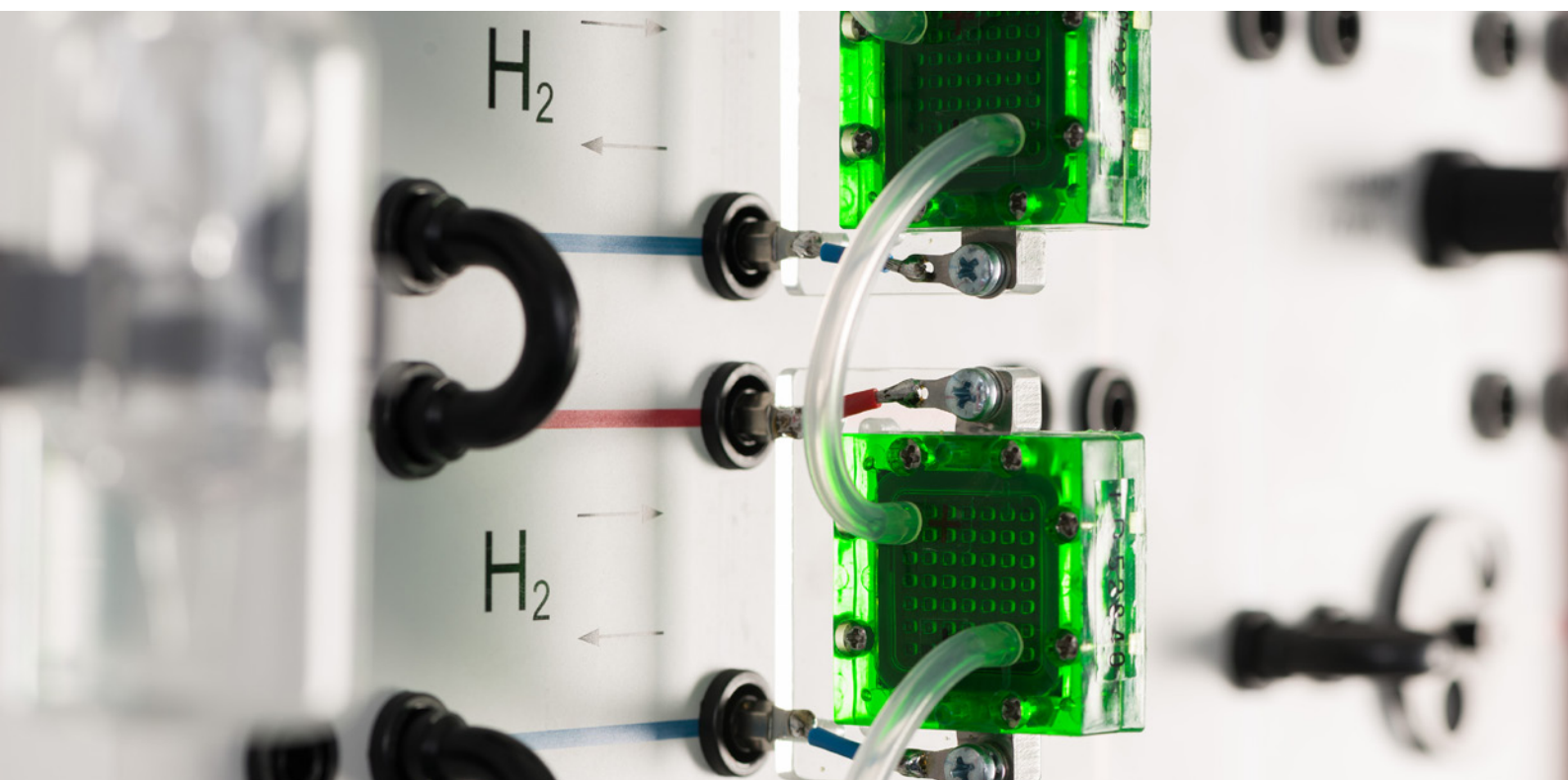
The 15 experiments are designed to be operated safely and space-saving on the panel.



QUICK
AND EASY
HYDROGEN
CHARGING

2.

THE EXPERIMENTATION PANEL FOR DEMONSTRATION



The new Chemistry Panel System (CPS) Fuel Cell Stack (666 4812)

- New PEM Fuel Cell Stack, consisting of four individual cells, can be easily switched in series or parallel
- Clearly arranged and easily visible at a distance: Suitable for demonstration and project work
- In combination with the panel „Electric Load“: Easy acquisition of characteristics and measurement of efficiency
- Hydrogen from the HydroStik Pro, no gas bottle needed



HydroStik PRO as simple as charging your mobile phone:

1. Insert Stick into charging station HydroFill Pro
2. Charge 4 to 6 hours with Hydrogen
3. Use Hydrogen in experiments



The new gas reservoir with bubble counter enables the students to work on a dry table at their normal work place.

STUDENT EXPERIMENT

Fuel Cell Workstation	667 4048
Measuring unit S	667 4041
LIT: Fuel Cell Workstation	668 46DE

DEMONSTRATION EXPERIMENT

HydroStik PRO, CPS (Chemistry Panel System)	666 4795
Bubble counter, CPS	666 4794
PEM Fuel Cell Stack, CPS	666 4812
Electric load, CPS	666 4831
HydroFill Pro	666 4798



The HydroFill PRO (666 4798) provides Hydrogen produced by electrolysis of distilled water. Hydrogen is stored as metal hydride in the HydroStik PRO (666 4796) and can be handled safely and released easily.

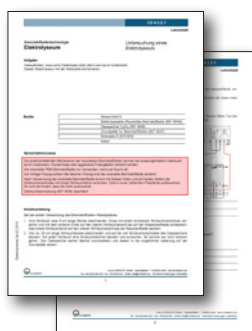


HydroStik PRO
(666 4796)



Recording of characteristics with Sensor-CASSY 2 and CASSY Display (no computer needed).

EXPERIMENTAL LITERATURE FOR BOTH SYSTEMS



- Easy to understand students worksheet
- Includes progressive work instructions and assembly drafts
- Detailed information and experiment results for teachers
- Free of charge online-updates via our Document Center

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