

# ALTERNATIVE ENERGY SERIES

## Fuel Cell Experimentation Set

### DESCRIPTION:

Fuel Cell experimentation system in a sturdy carrying case. Consist of PEM Fuel Cell Stack 10 (ten cells), Electrolyser 65, Power Supply 15, Fuel Cell Monitor Pro 3.0, hydrogen storage tank Storage 80, electric load experimentation Set Lamp, Fan, Solar Module 13 and magnetic vertical bracket system Holder Set. The following accessories are also included: water bottle (with distilled water), protective goggles, silicone tubing, text-book



### ACTIVITIES INCLUDE:

- Building a fuel cell stack up to ten cells
- Producing and storing hydrogen
- Determining characteristic curve of solar panel
- Voltage-controlled automatic measurements
- Determining characteristic curve of electrolyser
- Determining electrolyser efficiency
- Learning Faraday's Laws
- Determining characteristic curves of fuel cell
- Determining fuel cell efficiency
- Determining decomposition voltage of water
- Long-term measurements at your own PC
- Monitoring single cell stack voltages at your PC
- Power-controlled automatic measurements
- Fixing the output at different operating points of the fuel cell stack

## Hydrogen Concept Car & Gas Station

### DESCRIPTION:

Our most realistic model car set gives observers a glimpse of the transportation technology of the future. The gas station uses solar power to run an electrolyser and produce hydrogen gas. This gas then feeds the air-breathing double fuel cell on board the car, producing electricity and driving the car forward. One tank of hydrogen produces enough power for a 7-minute run time. Power supply and experiment / textbook included.

Model Hydrogen car is equipped with a fuel cell stack H<sub>2</sub>/air (two cells) combined with a hydrogen gas station, Approx. 30 sec. charging time and 7 min. running time. Hydrogen Gas Station consists of electrolyser, hydrogen storage tank and 3-panel solar module.

