

# ALTERNATIVE ENERGY SERIES

## Fuel Cell Tutorial Teacher Set

### DESCRIPTION:

Complete solar hydrogen system in a carrying case. Consist of Solar Module Tutorial, reversible fuel cell RFC H<sub>2</sub>/O<sub>2</sub>/Air for production of hydrogen and oxygen, PEM Electrolyser Cell5 for hydrogen and oxygen production, PEM fuel cell for hydrogen/oxygen or hydrogen/air operation, Direct Methanol Fuel Cell with built-in methanol tank (runs on 3% methanol-in-distilled-water solution), PEMFC kit that can be completely disassembled, two hydrogen/oxygen storage tanks for electrolyser- and reversible systems, Fan Tutorial and car applications as electric loads, baseplate, Power Supply, Battery Box, connector cables, silicone tubing and 250ml distilled water. Solar cells, fuel cells, gas storage tanks and fan each have a magnetic base and can be combined for numerous experiments such as solar car, hydrogen production in a solar-hydrogen gas station, air breathing fuel cell car, solar hydrogen system, reversible fuel cell system, dismantle fuel cell and methanol system. Comprehensive instructional materials included. Methanol solution is included for products delivered within Europe.



### FEATURES:

- Modular design
- Magnetic assembly
- Includes teaching folder and experiment templates
- Includes direct methanol fuel cell and PEM fuel cell kit

### ACTIVITIES INCLUDE:

- Assembling a fuel cell
- Producing and storing hydrogen
- Determining characteristic curve of solar panel
- Hydrogen/oxygen or hydrogen/air operation
- Determining characteristic curve of fuel electrolyser
- Determining electrolyser efficiency
- Learning Faraday's Law
- Determining characteristic curves of fuel cell
- Determining fuel cell efficiency
- Determining decomposition voltage of water
- Building a model hydrogen car
- Using methanol to generate electricity
- Determining characteristic curves of DMFC

\*For the blue experiments you also need the Measurement Set

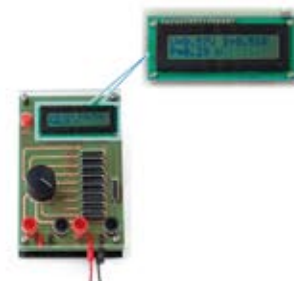
### OPTIONAL ITEMS:



*Spotlight*



*Measurement Set*



*MultiDecade*