



DL BIO-L

Bio-fuel

The entire process of the production of organic fuels can be displayed with this kit. It starts with the biological step of alcohol fermentation. Afterwards, the produced mash will be distilled with the help of the condenser. The last step demonstrates the conversion of the produced bio-fuel into usable energy, such as electrical energy, using the provided Ethanol-fuel cell. The kit not only covers the topic of the production of bio-ethanol, but also the production of biodiesel through transesterification of fats.

MAIN COMPONENTS

- Base unit
- Erlenmeyer flask
- Borosilicate beaker glass
- Alcoholmeter
- Condenser
- Plug with hose
- Yeast
- Propeller
- Airlock
- Rubber stopper
- Bumpon transparent
- Distilling head
- Pasteur pipette
- Measuring cylinder
- Syringe
- Laboratory thermometer
- Motor module without gear
- Ethanol fuel cell
- Potentiometer
- Aerometer
- Silicone ring
- CD with manuals in English
- AV module
- Bunsen burner
- Test leads - black 25 cm
- Test leads - red 25 cm
- Clamps, base plate, etc.



EXPERIMENTS

- Production of Biodiesel (FAME) from fats & oils
- Extraction of fats from groceries or oil plants
- Differences between cooking oil and FAME
- Fermentation on the basis of different sugars
- Proof of CO₂ by a calcium hydroxide solution
- Relation between reaction speed and temperature
- Distillation of fermented mash
- Working principle of the fuel cell
- Recording the characteristic curve of a 15 % solution
- Temperature dependence of the power
- Concentration dependence of the power and the characteristic curve

