## Power Electronics, Functional Integration

## 2. Measurement Systems

### Electro-chemical analysis equipment

#### test of battery systems



Source: Vacuum atmospheres BioLogic und Comsol

# Electric machines, drives and power electronics lab

- E-machines/drives test benches
- · vehicle grid simulator
- power electronics test benches
- · concentricity analysis
- digital power analysers
- dynamic electronic sources and loads for experimental simulation of effects in vehicle grids

#### **Specifications:**

- high voltage source 3kV/10A
- low voltage source 15V, 3000A
- 2 rotating ac-converters
- 10-100Hz, ... 920V, 100kVA2 rotating dc-converters
- ... 460V, ... 125kW
- bi-directional dc-source up to 1.200V

- battery tester
- test setups for characterisation of power semiconductor devices under lab and climate conditions
  - 3 bi-directional dc
    sources 30kW, up to 750V
  - bi-directional, high-dynamic dcsource 40kW
  - 1~ac-source up to 6kHz (sinus), 5kW
  - passiv loads





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Page 64

