

Friction rods

Hard rubber rod. Diameter 12mm length 25mm.	5139
Plexiglas rod. Diameter 12mm length 25mm.	5002
PVC rod. Diameter 12mm length 25mm	5003
Glass rod. Diameter 12mm length 25mm.	5058



5139 - 5002 - 5003 - 5058

Double electric pendulum

If you bring an electrified body near the instrument, its two balls diverge because they acquire an electric charge of the same sign, due to the electric induction.



5090

Set of 5 friction rods 5348

The set is composed of 5 electrifiable rods: plexiglas, nylon, hard rubber, glass, hard rubber-brass. With wool cloth, silk cloth and rod stand. Diameter 12 mm length 25 mm.



5348

Electroscope 5280

If you bring an electrified body near the plate of the instrument, the leaf diverges because of the electrostatic repulsion with the rigid stand. With graduated scale. 12,5 x 7,5 cm, h 17 cm



5280

Volta's Electrophore



5431

The item is composed of a polystyrene base that you can electrify by rubbing it; on this base there is an aluminum disk with insulated handle.

Wimshurst Machine (premium version) 5085

The item has two special disks which don't deform over the course of time. Two Leyda decomposable bottles. Adjustable distributor. Spark: 50-60 mm. Disk diameter: 400 mm.

Plexiglas



Wimshurst Machine (economic version) 5115

It is a light and handy economic version. Disc diameter 24 cm. Sparks up to a length of 50 mm can be obtained. The most significant electrostatics experiments can also be carried out with this generator.



5115



5085

Van de Graaff generator**5549**

The Van de Graaff generator is an electrostatic machine which uses a moving belt to accumulate electrostatic charge on a hollow metal globe on the top of a transparent and insulated column, that allows students to see how the system operates.

It is provided with a 225 mm sphere which can generate approximately $150 \div 200$ KV.

It is provided with an electric variable speed motor or hand driving. Discharge sphere, electrostatic plume and electrostatic whirl are included.

It is possible to adjust the distance between the globe and the discharge sphere thanks to an articulated joint placed on the base.

Dimensions:

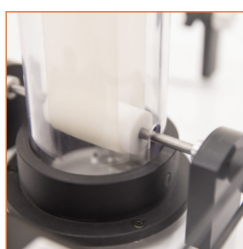
Spheres' diameter: 225 mm and 70 mm

Height: circa 650 mm

Base: 250 x 350 mm

Equipment supplied

- 1 Electrostatic plume
- 1 Electrostatic whirl

**5549****Kit for electrostatic machines (advanced)****5404****Equipment supplied**

- | | |
|---------------------------------------|--------------------------|
| 1 Universal stand | 1 Faraday's cage |
| 1 Spark panel | 1 LED with support |
| 1 Metal sphere with insulating handle | 1 Faraday's well |
| 1 Electric pendulum | 2 Crocodile clips |
| 1 Electrostatic whirl | 1 Electrostatic engine |
| 1 Blowing tip | 2 Leads |
| 1 Dance of the balls | 1 Articulated discharger |
| 1 Electrostatic plume | |

**5404****Kit for electrostatic machines (basic)****5051****Equipment supplied**

- | | |
|------------------------------|-----------------------|
| 1 Circular base | 1 Electric whirl |
| 1 Isolated support with hook | 1 Dance of the balls |
| 1 Candle with holder | 1 Copple of balls |
| 1 Universal support | 1 Electrostatic plume |
| 1 Support with tip | 2 Crocodile clip |
| 1 Point-shaped conductor | 2 Leads |

**5051****Electric whirl** **5099**

It can show the dispersive power of the points thanks to the mechanical effect.

**5099****Electrostatic blower** **5046**

It can show the dispersive power of the points.

**5046****Point-shaped conductor** **5204**

Made of nickel-plated brass, it enables you to experiment on charge distribution in insulated conductors.
Length: 220 mm.
Height: 300 mm.

**5204****Articulated discharger** **5092**

With insulated handle.

**5092**

Electrostatic bell ring

5073

If you connect the apparatus to an electrostatic machine, the pendulum hits the two bells alternatively because of the electric actions.
Height: 380 mm.



5073

Spherical conductor

5091

For experiments on electrification (through contact and through induction), on the potential and charge density in conductors. Sphere diameter: 100 mm. Height: 370 mm.



5091

Coulomb's sphere

5087

For experiments on electrostatic induction (Faraday's well, for example). It is supplied with an electric spoon.
Sphere diameter: 100 mm.
Height: 370 mm.



5087

Couple of cylindrical conductors

5071

Being a kind of divisible conductor, this apparatus, equipped with two pairs of balls, verifies the electric poles through the phenomenon of the electrostatic induction.



5071

Couple of conductors with electroscope

5089

They have the same function as the previous couple of conductors code 5071, with the advantage of being connected to a two leaf electroscope.



5089

Faraday's cage

5140

The item is supplied with double electric pendulum, thus allowing the performance of experiments on the electrostatic screen.
Diameter: 120 mm. Height : 265 cm.



5140

Leyda's bottle

5088

Cylindrical condenser for experiments on the electric capacity.
It is supplied with insulated handle to extract the inner framework when the condenser is charged.



5088

Device for showing the flux lines of the electric field

5351

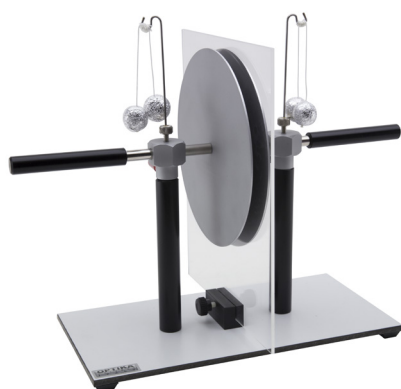
The item is composed of a tray made of transparent material, to be placed on an overhead projector, and of electrodes to be fixed along the rim of the tray. The latter is filled with castor oil; semolina grains float on the oil's surface. If you connect two electrodes to the poles of the high-voltage generator (code 5324) or to an electrostatic machine, the behaviour of the flux lines of the electric field becomes visible. The item is supplied with 250 ml of castor oil and a bottle of semolina grains.



5351

Plate capacitor**5093**

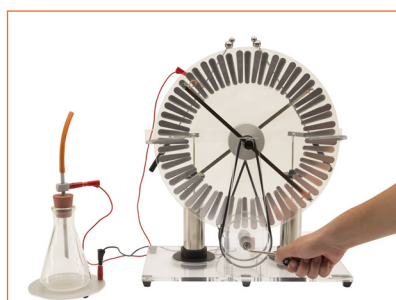
It is a capacitor which allows you to prove that the electric capacity depends on the distance from the framework and on the dielectric material. It can be used to show the flux lines of a uniform electric field too. Products, not provided, but required for doing experiments: wimshurst machine code 5085 and electroscope code 5280.

**5093****Electrostatic smoke precipitator****5703**

The smokes and powders coming out of the chimneys of those mills where toxic substances are used, contribute greatly to air pollution. With this apparatus you can show how to obtain their elimination. Using a rubber tube, a lit cigarette is put in communication with the inside of the flask. If you suck out the air using the pump, the flask fills up with smoke. The internal electrode, which is pointed, and the external plate must be connected to an electrostatic machine (we suggest the code 5085). Switching on the machine, you will notice that, at first, the smoke spins around and then it disappears. If you repeat this operation several times, the walls become black. Cleaning the flask with a bit of white spirit, the tar contained in the cigarette's smoke melts down, allowing the teacher to show the damage caused to the airways.

Equipment supplied

1 Erlenmeyer flask for filtration 500 ml
1 Pointed electrode with rubber cap
1 Manual suction pump with hose
1 Aluminium base
1 Mohr Clamp
1 Bottle of white spirit 250 ml
2 Cables
2 Crocodile clips

**Smoke precipitation****5703****Electrostatic cell****5714**

An hermetically sealed acrylic case, containing polystyrene tiny balls. When the upper part is rubbed for a long time with a cloth, the electrostatic charge generated makes the balls move, demonstrating the action among charges.

**5714****Electrometer with accessories****5045**

The item is able to measure electrostatic potentials up to 5kV. The metal stand has a hole for the grounding. It is supplied with disk condenser, Faraday's well and electric spoon.

**5045****Franklin Motor****6440**

By connecting the terminals to an electrostatic machine, the sphere of insulating material is put in rapid rotation.

**6440****Electrostatics****18 feasible experiments****Topics**

- Electrification
- Protons and electrons
- Electric forces
- Electrostatic induction
- The pith-ball electroscope
- Conductors and insulators
- The gold leaf electroscope
- How to determine the sign of an electric charge
- The sign of an electric charge
- The wimshurst machine
- Flashes and lightnings
- The electric field
- How to reveal the existence of electric fields
- The power of points
- The electric whirl
- The dancing beads
- The electrostatic plume
- Franklin's electrostatic engine

**S87****S87**