

# IonFlow Modular electrophoretic equipments

**IonFlow Modular** equipments are multi-channel electrophoretic equipment designed specifically for researchers using multi-barrel microelectrodes. The number of the electrophoretic channels can be optimised for the actual experiment. The system can be configured up to 8 channels (plus the compensating channel). Every channels are located in separated equipment boxes. The boxes can be put on each other. In this way the system can be mounted as a "tower". There is a special cable, which connects the elements of the "tower" to form one synchronised equipment system. In this way it is not necessary to buy more number of channels than it is really necessary (exactly as the number of barrels of the electrode). If the number of the barrels used in the experiment is increased, the system can be expanded very easily. The only task is to put one more "floor" on the top of the "tower", and to connect it to the system. The power supply of the **IonFlow Modular** is the same, highly sophisticated floating power supply, as the power source of the **IonFlow Bipolar**, because this system is always used in microelectrode environments, where the protection against the hum noise is essential. Furthermore, the distance between the recording electrode and the electrophoretic electrodes are extremely small on the multi-barrel electrodes. The compensating channel has got a special function. Its task is to produce a current with opposite polarity, but the same value as the algebraic sum of the electrophoretic currents of the channels, to avoid the excitation effect of the current for the cells. In every multi-channel systems only one compensating channel is necessary to built in.

In our choice there are three different electrophoretic equipments. All of them are up-to-date, microprocessor-controlled constructions. **IonFlow Pro** is a high-voltage electrophoretic equipment for all general human dental, and cosmetic applications. **IonFlow Bipolar** is a single-channel electrophoretic equipment for microelectrode research applications. **IonFlow Modular** is a modular, expandable multi-channel version of **IonFlow Bipolar**, with an additional current compensating channel. Our electrophoretic equipments offer high accuracy due to their microprocessor-based, fully digital internal electronic design. Since we use state-of-the-art electronic components, and extremely thorough quality checking during their manufacturing process, their reliability is delicious. The **IonFlows** have got menu-driven internal software, so it is very easy to learn how to use them.

The electrophoresis (which collective word covers the effects of ionophoresis and electro-osmosis) offers a comfortable opportunity to pass medicines, and/or other chemical substances into any conductive organs (e.g. the human body through the surface of the skin, or directly into tissue cultures) in correctly measured small quantities with electric current. During ionophoresis the ions move due to an electric potential field. The non-ionic substances can be passed similarly with electro-osmosis. The substances, which are designed in the pharmaceutical factories for human electrophoretic purposes meet these requirement. The solutions used in research labs should be designed according to these facts. The quantity of substances passed from the electrode can be controlled exactly by two parameters: the current and time of the electrophoresis.

The operating modes, and the electronic parameters of the electrophoretic channels of **IonFlow Modular** are the same as the operating modes, and technical features implemented in **IonFlow Bipolar**, except the compliance voltage, what is +/- 40 V in this equipment. The compensating channel works automatically according to the commands received from the electrophoretic channels.

We give you **5 years of full warranty** for **IonFlow Modular**.