The top of flexibility: PrinCE-C 650 and 660 Capillary Electrophoresis

The PrinCE-C 650 and 660 are the top of flexibility in Capillary Electrophoresis. Both these systems are added with a second buffer lift. This second lift is used to allow the change of outlet buffers at will. Strictly speaking, the phrase outlet buffer is not even correct, because both sides (lifts) can serve as the one that is used for injection.

Because of the dual lift approach and the possibilities for external pressure, the PrinCE-C 650 and 660 is the most versatile of all CE instruments. It is ideally suited for method development and routine analysis by one or more methods after another. The latter can be extremely useful, if not all analytes in a sample can be separated with a single buffer. The PrinCE-C 660 offers the possibility of sample and buffer cooling.

The PrinCE systems are fully automated and can handle up to 32 (or optional 40) samples without interference of the operator, while still maintaining 10 (or optional 5) buffer vials. Standard these PrinCE systems are delivered with 10 buffer positions, in order to ensure enough buffer volume for all samples. As an option one buffer segment can be replaced by a sample segment, resulting in a sample capacity of 40. Any combination of six segments (sample/buffer type) can be used. The segments can be exchanged easily by the operator without needing any tools. The possible segments are 5 positions for buffers or 8 positions for samples.

Under precisely controlled circumstances it is possible to use the PrinCE-C 650 and 660 for fraction collection, but this requires a lot of accuracy and precision of the operator. Because of the minute sample amounts - so typical in CE - dilution of the fractions cannot be avoided.

The PrinCE- C 600 is the successor of the PrinCE 500 series. Some new features of PrinCE-C 600 series, compared to the PrinCE 500 series are:

1) Inlet and outlet device has been reduced by 5 cm, which results in a minimum capillary length reduction of 10 cm on the dual lift system. In the 1-lift configuration, this is also very interesting for CE-MS when it is appreciated to have an as short as possible capillary. Especially in combination with a fibre optics/remote cell detector the PrinCE-C 600 series can cooperate with very short capillary length.

2) High pressure up to 10 bar by gas pressure at one or both capillary ends allows CEC and faster rinsing with buffers of high viscosity

separations technology

PRINCE TECHNOLOGIES

Specifications of the top flexibility PrinCE-C 650 and 660

Injection modes	Hydrodynamic injection uses patended Dynamic Compression Injection (DCI) to generate and apply a range of positive and negative pressures with controlled ramping (-180 to 250 mbar, 1 mbar resolution). Electrokinetic injection features controlled ramping in voltage or current mode (max. 30 kV)
Pressure features	On inlet, outlet or both.
Flushing pressure	0 to +2500 mbar by DCI device, up to 10 bar by external pressure
Voltage range	-30 kV to +30 kV
Current range	-200 µA to + 200 µA
Ramping	Programmable voltage or current ramping
Polarity reversal	Programmable pre-run and during the run
Autosampler/ fraction collector	30/48 position carousel sample and buffer vials randomly accessible from both capillary ends. Variable vial sizes of samples and buffers available, including Eppendorf micro centrifuge tubes.
Buffer volume	Maximal 4 ml
Sample volume	Minimal 10 µl, maximal 4 ml
Temperature control	Samples & buffers cooling 4˚C to 40˚C (PrinCE-C 660 only). Capillary: 5˚C below ambient to 60˚C
Capillary	Flexible in length and diameter depending on application or configuration
Sophisticated features	Current or voltage controlled method step durations (for on-line pre-concentration). Positive or negative pressure during electrophoresis. Outlet-and injections of sample or reagents.
Power requirement	115/230 V, 50/60 Hz, 300 VA
Dimensions	50 x 50 x 54 cm (w x h x d)
Weight	37 kg
Accessories	Detector table on top, WinPrinCE control software and a start-up kit of sample and buffer vials
Detector	Allows the use of any detector including MS, Fluorescence, Conductivity, UV/VIS, Photo Diode Array.
Software	Allows the use of any data station. Optional: Our DAx Data Acquisition and Analysis software. This software is specially made for our PrinCE-systems

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