

CAPEL-205

Capillary electrophoresis system



MAIN APPLICATIONS

Environmental analysis

- ❖ Natural, drinking, and waste water (F^- , Cl^- , Br^- , I^- , NO_2^- , NO_3^- , PO_4^{3-} , SO_4^{2-} , acetate, NH_4^+ , Ba^{2+} , Ca^{2+} , K^+ , Mg^{2+} , Na^+ , and other inorganic and organic ions)
- ❖ Soils, sludge, and sediments (inorganic and organic anions and cations)

Animal feeding & Veterinary

- ❖ Fodder, mixed fodder, and mixed fodder raw materials (amino acids, cations and anions, organic acids, vitamins)
- ❖ Veterinary drugs (antibiotics, antiprotozoal agents)

Biopharma

- ❖ Quality control of therapeutic recombinant proteins
- ❖ Protein separation
- ❖ Enantiomers separation
- ❖ Pharmacokinetics studies

Food testing

- ❖ Bottled water (inorganic and organic anions and cations)
- ❖ Carbonated drinks and juices (sweeteners, preservatives, synthetic dyes, antioxidants, vitamins, inorganic cations and anions, organic acids, sugars)
- ❖ Beer (inorganic cations and anions, hop and bitter acids (humulones and isohumulones), amino acids, organic acids, vitamins)
- ❖ Strong drinks (inorganic cations and anions, aromatic aldehydes, organic acids, sugars)
- ❖ Tea, coffee (caffeine, polyphenols)
- ❖ Foodstuff (preservatives and other food additives, organic acids, amino acids, amines, proteins)
- ❖ Milk and milk products (sugars, inorganic cations and anions, organic acids, vitamins, proteins, sweeteners, preservatives)



ADVANTAGES OF CAPEL-205

High capacity autosampler for sealed vials with automatic opening

- ❖ Standard Eppendorf® type vial (1.5 mL)
- ❖ No sample evaporation
- ❖ No sample contamination

Easy-to-change capillary cassette

- ❖ Capillary cassette change just in a few seconds

Extended instrumental options

- ❖ Complete control of the instrument from a PC
- ❖ Broad range of controlled injection pressures allows analysis of viscous samples
- ❖ Reverse sample injection under vacuum: ultra-short analysis time (less than 1 min) and sample stacking to decrease detection limit
- ❖ Spectra scanning facilitates peak identification

Precise liquid temperature control of capillary ($\pm 0.1^{\circ}\text{C}$)

- ❖ Extended range of applied buffers, increased efficiency in separation

Powerful software package «Elforun»

- ❖ Increased flexibility in performing analyses of various complexity
- ❖ Any kinds of complex runs are possible including those with pre-programming of changes in analysis conditions
- ❖ Customized report, data export to other programs

Streaming potential control technique

- ❖ Improving repeatability of migration time and accuracy of analysis

SPECIFICATIONS

Detection wavelength	190–400 nm, light source – deuterium lamp
Analysis	Constant voltage, from –30 kV to +30 kV in 1 kV steps Automatic (electronic) polarity switch
	Current 0–300 μA
	Pressure, up to 100 mbar
	Programmable changing of wavelength, pressure and voltage during analysis
Injection	By voltage, from –30 kV to +30 kV in 1 kV steps; by pressure, from –100 to 100 mbar in 1 mbar steps
Rinsing	By pressure, 500–2000 mbar in 1 mbar steps
Capillary	Length 30–120 cm
	Internal diameter 50, 75 μm
Temperature control of capillary	Liquid thermostating, from –10 up to +30 $^{\circ}\text{C}$ from ambient temperature, $\pm 0.1^{\circ}\text{C}$
Sampler	Autosampler for 59 vials (standard Eppendorf®-type 1.5 mL)
Power requirements	110–240 VAC, 50/60 Hz
Power consumption	170 W
Dimensions/Weight	470x530x410 mm, 30 kg
Control	Elforun software

EQUIPMENT & OPTIONS

- ❖ Capillary electrophoresis system CAPEL-205
- ❖ Spare capillary cassette
- ❖ Elforun software package
- ❖ Kits & sets for analysis (by request)

SERVICES

Installation of instruments can be carried out at a Customer's site by our service engineers. Personnel training specific to the Customer needs can be also provided.

WARRANTY

All CAPEL-205 capillary electrophoresis systems are covered by a 12-month warranty.



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