## ECAFLOW 150 GLP



EcaFlow Model 150 GLP is a PC controlled automatic laboratory analyser for the determination of trace and high concentrations of metals, semi-metals and numerous nonmetals in various samples. By making use of the autosampler AS-150 up to 42 samples can be analysed in full automatic mode. The system supports the standardless, calibration curve and standard additions techniques. Over 70 validated applications are available for numerous sample types such as waters, foods, industrial liquids, wastes, etc. EcaFlow is a compact laboratory instrument controlled by a PC.

The control unit contains the power support unit, control processor with a channel analyser, fast A/D and D/A converters and a high performance generic potentiostat/galvanostat. The compact flow system is controlled by the control unit and operates full automatically. It contains com-

puter controlled electromagnetic valves for switching either to the sample solution or to an electrolyte solution or to a standard solution for the standard addition. Solutions are driven by a peristaltic pump. The heart of the system is the patented compact electrochemical cell.

The cell uses disposable flow-through working electrodes made of suitable inert material. The counter and reference electrodes are separated from the flowing solutions hydrodynamically, so the reaction products at the counter electrode cannot interfere at the working electrode. The working electrode can be easily changed simply by loosening a screw. The cell is fixed to the panel of the instrument by a special connector which serves as an electrical contact to the electrodes. The connections of the tubes are made of Luer-type fitting, which facilitates fast manipulation when the electrode or cell is changed.

## **TECHNICAL DATA**

POTENTIOSTAT/GALVANOSTAT: 12 V / 20 mA

MEASURING CELL: EcaCell 353c or EcaCell 104 with three electrodes

**FLOW SYSTEM**: Full computer control with peristaltic pumping

WEIGHT: 7 kg

**DIMENSIONS**: 500 x 450 x 140 mm

SOFTWARE: Chronopotentiometry, coulometry, voltammetry

**COMPUTER (OPTION)**: Any PC with Windows XP and higher

AUTOSAMPLER (OPTION): 42 positions + blank + standard

## AVAILABLE APPLICATIONS ALL INCLUDED

- 1 Flow-through analyser test
- 3 Simultaneous determination of Cd, Pb and Cu
- 4 Determination of Pb
- 5 Simultaneous determination of Sn and Pb
- 6 Simultaneous determination of Pb, Cd and Hg
- 7 Determination of EDTA
- 8 Simultaneous determination of Zn, Cd, Pb, and Cu
- **9** Simultaneous determination of Cd, Pb, a Cu in wines
- **10** Determination of Ag
- **11** Determination of As(III) and total As in urine
- **12** Determination of As(III) and total As in fertilisers
- **13** Determination of Se in waters
- **14** Determination of Mn
- **15** Determination of Hg
- **16** Determination of Fe in waters
- **17** Determination of Sn
- **18** Determination of Bi
- **19** Determination of As in drugs
- **20** Determination of chlorides in waters
- 21 Simultaneous determination of Zn, Cd, Pb, and Cu in wines
- 22 Simultaneous determination of Zn, Cd, Pb, and Cu in spirits
- **23** Simultaneous determination of Cd, Pb, and Cu in beers
- **24** Determination of Fe (higher concentrations) in waters
- 25 Determination of Cd, Pb, and Cu in soil extracts
- **26** Determination of Sb
- 27 Simultaneous determination of Zn, Cd, Pb, and Cu in waters
- 28 Determination of As(III) and total As in waters
- 29 Determination of Zn, Cd, Pb,
- and Cu in pectines
- **30** Determination of iodides in urine
- **31** Determination of Au in water samples
- **32** Determination of low Ni contents
- **33** Determination of iodides in foods and beverages
- **34** Determination of Cr(VI) and total Cr in waters
- **35** Determination of nitrates in waters
- **36** Determination of Ascorbic Acid
- **37** Determination of chlorites in waters
- 38 Determination of bromates in waters39 Boric acid in nickel plating baths
- **39** Boric acid in nickel plating baths
- **40** Determination of total As in waters

- **41** Acidimetry determination of strong and weak acids
- **42** Determination of Fe in concentrated sulphuric acid
- 43 Determination of Cu in waste waters
- **44** Alkalimetry determination of strong bases
- **45** Simultaneous determination of total As and Hg
- **46** Determination of Zn in galvanic baths
- **47** Determination of Ni in galvanic baths
- **48** Chlorides in galvanic baths
- 49 Cr(III) in passivating galvanic baths
- **50** Determination of phosphates with microporous electrodes
- **51** Determination of sub-ppb Hg concentrations
- 52 Determination of Zn in waste waters
- 53 Cu in wine samples
- 54 Determination of Fe in clear and turbid water samples
- 55 Determination of Au in ores
- **56** Determination of Sb in the presence of As and Cu
- 57 Determination of low Se concentrations
- 58 Sulphites in wines
- 59 Sulphites in beers
- 60 Titanium in TiO2
- **61** Determination of phosphates in clear as well as turbid water samples
- 62 Determination of total ammonia in underground and tap waters
- **63** Determination of total ammonia in waste waters
- 64 Determination of Cr(VI) in clear as well as turbid water samples
- **65** Determination of Ni in clear as well as turbid water samples 2-
- 66 Determination of sulphides (S ) in waste waters
- **67** Simultaneous determination of Zn, Cd, Pb, and Cu in turbid samples
- **68** Coulometric determination of sulphides in waters
- 69 Acid content in wines
- 70 Ethanol in beverages
- 71 Sulphites (SO3 ) in foods
- 72 Chlorides (Cl ) in foods
- 73 Chlorites (CIO2 ) in disinfected water
- 74 Manganese (Mn) in aquatic samples
- 75 Bromides (Br ) in water
- **76** Cd, Pb and Cu in concentrated zinc sulphate
- 77 Simultaneous determination of Pb, Cu and Hg in waters











