



enduro T2100

The enduro T2100 is the sixth generation of atomic absorption spectrometer developed by GBC Scientific Equipment. It inherits the tradition of designing for customer's needs and requirements. The enduro T2100 is a new Tandem Flame and Furnace atomic absorption spectrometer with transverse heating and longitudinal Zeeman background correction with variable magnetic field strength for furnace and deuterium background correction for flame. The instrument has improved background correction performance and exceeds the requirements of the analysis of food, environmental, biological and other complex matrices.

enduro T2100 – Top of the Range Zeeman Furnace – Deuterium Flame Tandem AAS

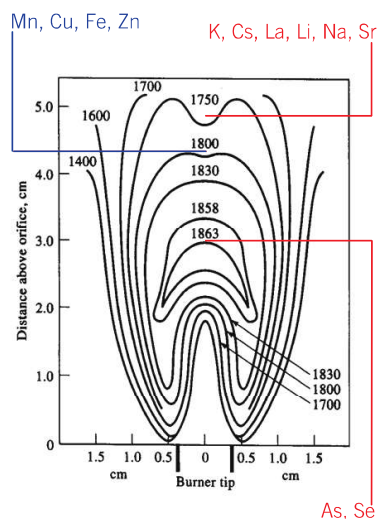
The enduro T2100 is packed with these great features:

- Transversely heated graphite furnace technology ensures high efficiency and homogeneity of sample atomisation.
- Longitudinal Zeeman and Deuterium Lamps are two types of background correction modes provided which allow the user to select the appropriate mode.
- Unique adjustable magnetic field strength 0.6 – 1.1 Tesla in 0.1 Tesla increments, to ensure high sensitivity and precision.
- 8-lamp automatic lamp turret with auto-alignment feature to ensure fast lamp selection and optimisation.
- Coded lamp recognition technology, which can recognise both hollow cathode lamps and super lamps.
- Super lamp power supply, with the latest design, to ensure greater sensitivity while consuming less power and generating less heat.



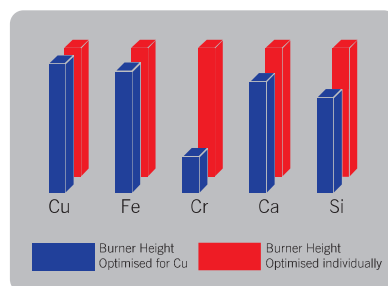
Motorised Burner Height

The motorised burner head adjusts the burner head in the longitudinal direction. This is software controlled to ensure that the burner head can be accurately and reproducibly positioned in the optical path to optimise the sensitivity of the analysis.



The position of the head is stored in the method. During sample analysis no operator intervention is required so that the best sensitivity is guaranteed even in an unattended multielement analysis.

The graph below shows the sensitivity of the elements when the burner height is individually optimised for each element (red) compared to sensitivity when optimised for Cu only (blue).



Super Lamp

The Super Lamps are specially designed ultra-high strength hollow cathode lamps. They provide significantly more light energy, for certain elements, such as As, Se, Cd, Ni and Pb. The Super Lamps will significantly improve the detection limit, sensitivity and calibration linearity. The enduro T2100 can be equipped to have 1 or 4 super lamps.

Coded Lamp Recognition

This function completely eliminates the possibility that the operator may input an erroneous element in the element lamp list. By simply inserting the lamp into the lamp holder, the software automatically identifies the type of element and the correct lamp position.

Electronic Sample Viewing (ESV)

The ESV is a real time colour camera for viewing of graphite furnace or flame. The ESV is indispensable for graphite furnace method development. The operator can observe the entire process from sample injection to atomisation in real time. This allows the sample injection, sample drying and ashing parameters, in particular, be set correctly to produce reproducible and accurate results.

Universal Flame/Furnace Auto Sampler

Allows 133 samples to be analysed unattended for BOTH flame and furnace.

Hydride Generator

Optional Hydride Generator is also available.

Excellent instrument performance, accurate results guaranteed

The enduro T2100 has horizontal heating, longitudinal Zeeman Effect graphite furnace technology. Compared with a Transverse-Zeeman Effect design, the longitudinal Zeeman Effect graphite furnace does not require a polariser in the optical path and hence almost double light energy reaches the detector. This enables lower detection limits, higher sensitivity and better calibration linearity. The transverse heating of the graphite tube ensures a higher temperature and greater uniformity of temperature distributed directly to the sample to ensure the high efficiency and uniformity of the sample atomisation.

Efficient graphite furnace design and precise temperature control provide the best analytical conditions which enables the enduro T2100 to obtain stable performance over numerous samples. The maximum heating rate of 2500°C/s ensures the best conditions for elements which require high temperatures such as Vanadium.

Unique variable magnetic field strength technology

Advanced variable magnetic field strength technology which allows the user to select the optimum magnetic field from 0.6T – 1.1T in 0.1T increments. This allows the optimum sensitivity for every element.

Dual background correction mode

The user can utilise Zeeman background correction for furnace analyses and Deuterium background correction for flame analyses.