

# Press Release

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## **ICPE-9000 Trendsetter in its class**

**Unique optical system /  
ICPEsolution software also suitable for less experienced users /  
Attractive price, low operating costs**

Shimadzu, one of the world leaders in analytical instrumentation, is adding the ICPE-9000, a new ICP spectrometer, to its product range. The instrument combines high performance with speed. The ICPE-9000 features a unique optical system and sets new standards in its class of simultaneous ICP-OES (Inductively Coupled Plasma Optical Emission Spectrometry) spectrometers.

ICP systems are important tools for routine analysis in many common daily applications. They are characterized by high sensitivity, a wide dynamic range and high sample throughput. In ICP, which has been commercially used since the mid 1970's, a plasma vaporizes samples, the released atoms and ions are excited, and subsequently emit radiation.

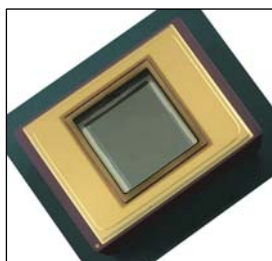
### **Accurate resolution through highly sensitive detection**

The optical system of the ICPE-9000 processes the emitted radiation, which is subsequently detected using a CCD detector (charge-coupled device) whereby the emission spectra of all elements under investigation are recorded. The high sensitivity of this detector enables accurate resolution of very closely neighboring elemental emission lines such as copper (213.60 nm) and phosphorus (213.62 nm). The ICPE-9000 is standard equipped with a vacuum system and enables quantitative determination of elements such as phosphorus (178 nm), sulfur (180 nm), arsenic (189 nm) and boron (182 nm) at very high stability.

### **Software also suitable for less experienced users**

Even difficult samples with complex matrices can be straightforwardly analyzed due to the “intelligent” ICPEsolution software which enables automatic wavelength optimization as well as interference correction. Less experienced users will profit from a simple user-assistant function guaranteeing reliable and reproducible measuring results.

Despite its high quality and measuring accuracy, the ICPE-9000 is extremely attractive in terms of price. In addition, the operating costs are low – for instance the ‘Minitorch’ technique reduces argon gas consumption to 12 L/min. A comprehensive accessories and peripheral equipment selection is available for the analysis of all types of samples, including sample injection systems such as pneumatic nebulizers and nebulizer chambers for aqueous and organic solutions. In combination with the ASC-6100 autosampler, fully automatic multi-element analysis can be carried out.



Caption 1: Large-scale CCD detector



Caption 2: ICPE-9000

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