

Q2 ION – Spark of Ingenuity



Bruker Elemental's [Q2 ION](#) optical emission spectrometer (OES) has been extremely successful for several years in Asia. Bruker took one of its high-end instruments, slimmed it down and presented a powerful, ultra-compact device for PMI, sorting and metals analysis. It caught on quickly and is still a fast seller. Constantly evolving and no bigger than a shoebox, the Q2 ION today performs even better than before.

Bruker Elemental has continuously optimized the basic model of the stationary OES range and was able to expand the matrix selection again. For

complex analysis of metal alloys, a non-ferrous matrix is now available to be able to detect the composition of Zamak alloys for the die-cast zinc (ZL0400, ZL0410 and ZL0430) quickly and accurately. However, components of electroplating zinc and many other zinc-based alloys no longer escape Bruker's ultra-compact emission spectrometer. So the Q2 ION now is also very interesting for enterprises such as zinc foundries, remelters, manufacturers of pipe fittings, galvanizing plants and zinc recyclers.

The Bruker Elemental Q2 ION is customized for other markets as well. In countries outside of Asia, the Q2 ION is known as an easy-to-use system with simple handling, low maintenance, short analysis times and a fast start-up sequence. The Q2 ION was not designed to provide a low-cost entry-level instrument with many applications, the focus was rather to give customers a multi-matrix system which works comprehensively and precisely for less complex analytical requirements.

The accurate analysis of metal alloys in the inspection of incoming goods is a crucial application. Place the sample on the spark stand, press the start button, and read the result – all in a matter of 30 seconds. Whether it's cold or warm is irrelevant for the analysis quality. Bruker Active Ambient Compensation (AAC) compensates for temperature changes automatically, making complex thermostatic control unnecessary. The Q2 ION is controlled by Bruker's Elemental Suite software – without keyboard or mouse, just directly by touch-screen.

Analytically calibrations for different matrices are available to fit your specific needs. All important elements and alloy groups are covered by application packages. In addition to the before-mentioned non-ferrous-matrix, the Q2 ION measures, for example, boron and tin in an iron matrix. By default, all alloying elements in steel, aluminum and copper alloys are measurable. The detection capability of UV elements such as carbon, phosphorus and sulfur make the Q2 ION, along with its multi-matrix capability, all-around best in its class. Compact dimensions and low weight ensure easy portability, allowing the unit to be used wherever it is needed. This means inexpensive acquisition and low operating costs.

The "little one" in the OES portfolio is actually "really big." The Q2 ION begins the entry in elemental analysis. Today for all process steps in the metals industry, Bruker Elemental provides worldwide individualized analysis systems.