

Japan's Shimadzu releases mass spectrometers for R&D of pharmaceuticals

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ICPMS-2040 and ICPMS-2050 provide approximately twice the sensitivity of conventional models

Japan-headquartered Shimadzu Corporation has announced the release of the ICPMS-2040 Series and ICPMS-2050 Series (as seen in the image) inductively coupled plasma mass spectrometers (ICP-MS) for qualitatively and quantitatively analysing inorganic elements.

The ICPMS-2040 is the standard model whereas the ICPMS-2050 offers higher sensitivity. Used for a wide range of applications, they achieve high-sensitivity measurements with less environmental load due to reduced argon gas consumption during measurements.

There are many types of inorganic elements ranging from ones hazardous to the human body, such as lead and cadmium, to essential nutrient components, such as potassium and calcium. Measurements of inorganic elements are conducted for quality control as well as research and development of pharmaceuticals, foods, cellular medium and environmental testing. Higher-sensitivity measurements are needed as even a small amount of elements influences product quality.

The ICPMS-2040 and ICPMS-2050 provide approximately twice the sensitivity of conventional models through the use of a uniquely designed plasma torch (a mechanism to generate plasma). The ICPMS-2050 achieves superior sensitivity measurements for specific elements through a new mechanism for removing unnecessary ions.

With both products, argon gas consumption has been reduced to approximately 2/3 of comparable instruments. They provide for a more efficient workflow by incorporating a wide variety of functions to support users, such as a function to shorten the rinse time, and field-specific measurement conditions that are provided as standard.