

MULTI-ELEMENT ANALYSIS OF DRINKING WATER FOLLOWING ISO 17294-2 USING THE NEXION 1000 ICP-MS. **Liyan Xing**, Chady Stephan, and Aaron Hinemann, PerkinElmer U.S. LLC (Liyan.Xing@perkinelmer.com)

Elemental analysis is critical to ensuring the quality and safety of drinking water. The international standard method ISO 17294 outlines the analysis of elements in water samples such as drinking water, surface water, groundwater, wastewater, and eluates using inductively coupled plasma mass spectrometry (ICP-MS).

The NexION® 1100 ICP-MS is equipped with Universal Cell Technology (UCT) that can be operated in both Collision mode with kinetic energy discrimination (KED) and Reaction mode with dynamic reaction cell (DRC) to tackle the polyatomic interferences. Compared to its prior generation, the NexION 1100 ICP-MS allows a higher cell gas flow, which can be utilized to mitigate the argon dimer interference on the measurement of Se in Reaction (DRC) mode using a premixed helium-hydrogen gas mixture.

The NexION 1100 ICP-MS is also advanced with integration of the LumiCoil™ RF coil technology with a GreenCT™ cooling system that reduces cooling needs, an LCD touch screen for a PC-less experience as well as LED lighting to alert users of the instrument's running status, and the all new Syngistix™ software for ICP-MS.