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New high purity grade solvents for UHPLC-MS instruments

03 September 2015 | News | By BioSpectrum Bureau

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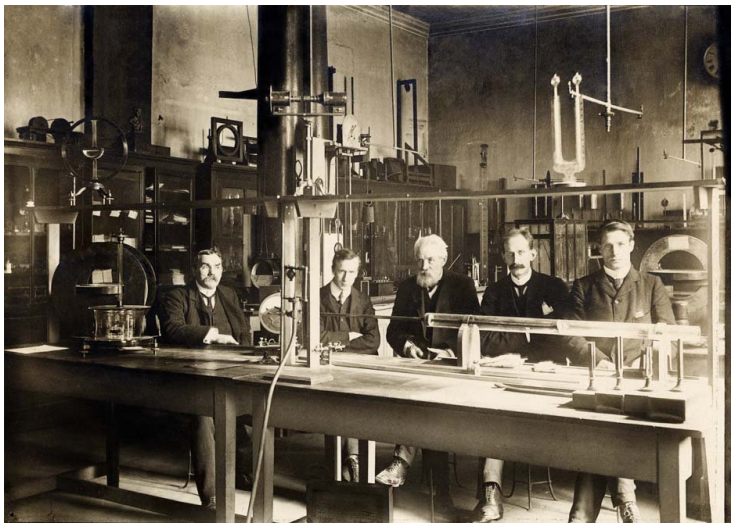

New, pure mobile phase solvents for ultra-high-performance liquid chromatography-mass spectrometry (UHPLC-MS) instruments have been designed to reduce background signal and minimize chromatographic interferences, facilitating accurate, sensitive and rapid trace analysis.

Fisher Chemical Optima UHPLC-MS solvents are high-quality, ultra-pure and designed to address the trace analysis needs ofchromatographers performing state-of-the-art UHPLC. These new solvents are qualified for use with UHPLC/MSinstrumentation, such as the Thermo Scientific Vanquish system.

UHPLC-MS is becoming the preferred technique to LC-MS in analytical laboratories, as it enables users to perform separations substantially faster, due to the innovative sub-2 micron columns.

Submicron filtration also reduces the clogging of instruments, columns and check valves. A typical LC-MS gradient run can take up to 60 minutes, whereas UHPLC-MS can reduce this to just five minutes, while yielding a similar resolution without compromising flow rates.

Optima UHPLC-MS solvents are ideal for detecting trace amounts of analyte by MS/MS using either gradient or direct-flowanalysis without baseline interference. Notably, Optima UHPLC-MS solvents provide a very low mass/noise level in both positive- and negative-mode ionization, minimal metal ion content and a low UHPLC-UV response using photo diode array detection.

"The quality of these high-purity solvents is linked directly to the sensitivity of high-end mass spectrometers, where parts-per-trillion levels of analyte can be detected by the signature product ion peaks, " said Subhra Bhattacharya, senior product development scientist at Thermo Fisher Scientific.

"The low signal-to-noise ratio achieved with the Optima UHPLC-MS solvents highlights the ultrahigh purity, resulting in

minimal background interference" , he added.