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Press Release

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X-ceptional insights

New *Nexera* X2 UHPLC system released /
For routine and highly regulated environments /
World's most sensitive photodiode array detector

Shimadzu, one of the worldwide leading manufacturers of analytical instrumentation, has introduced the *Nexera* X2 UHPLC system providing exceptional insights into the compounds analyzed. It is perfect for routine analysis as well as applications in highly regulated environments demanding complex system setups. Compared to the predecessor *Nexera* system, this completely renewed *Nexera* X2 offers higher core performance as well as new features improving analytical efficiency in a wider range of HPLC/UHPLC applications.

The new SPD-M30A photodiode array detector provides superior stability and has been designed for ultra-high sensitive applications. It suits the analysis of trace impurities and hazardous substances in food or drugs perfectly due to its world's highest levels of spectral resolution, sensitivity and outstanding separation. The new i-PDeA (intelligent Peak Deconvolution Analysis) function enables peak separation of non-separated peaks by extracting the peak spectra from co-eluted peaks, and quantitates them by exploiting the differences in spectra between each compound. i-PDeA enables users to visualize

and detect a minor single impurity even when the impurity is co-eluted with an analyte.

Modifications applied to the pump side significantly improve *Nexera* X2's stability in gradient use while reducing small air bubbles passing through the degassing unit. Additional micro reactor-based mixing devices can be selected for specific applications. A low volume quaternary option reduces the system volume in order to meet UHPLC needs while enabling a better intersystem method transfer.

The software has been intentionally adapted to meet the requirements for use in highly regulated environments. Software features controlling multiple gradients in a single system expand the system flexibility to use automated solvent blending on each pump in a binary gradient setup. Together with ultra-high speed data acquisition, software features maximize resolution on the PDA detector, ensuring peak deconvolution while squeezing maximum information out of a single analysis.

Figure 1: Improved food and drug safety through the new *Nexera* X2 with world-leading features

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