

Nexera X2
Ultra High Performance Liquid Chromatograph

SPD-M30A

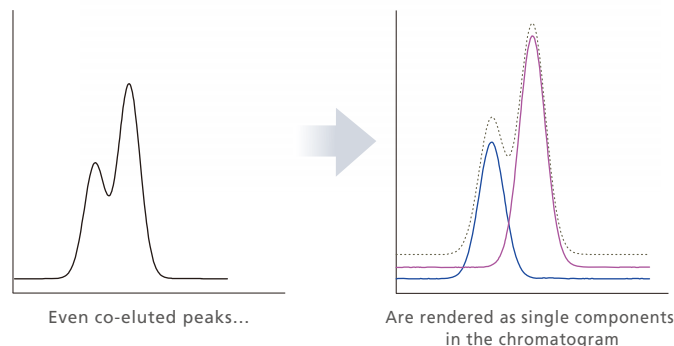
Photodiode Array Detector

The Shimadzu Nexera UHPLC system has evolved even further with the Nexera X2. Incorporating the new SPD-M30A photodiode array detector, this system provides the highest sensitivity and resolution under a variety of conditions, whether UHPLC or HPLC.



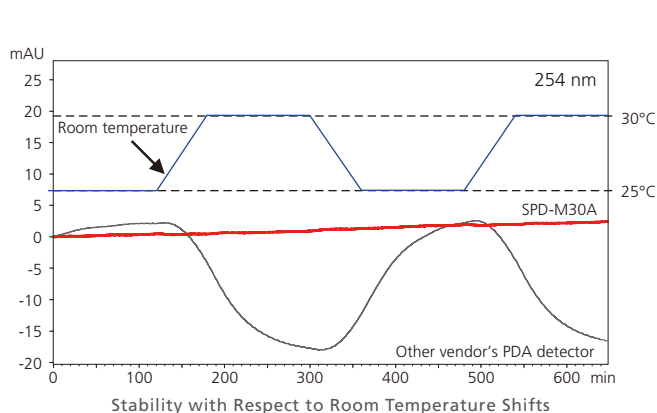
Intelligence: The *i*-PDeA function separates co-eluted peaks, and enables the visualization of unseen peaks

The new analysis function, *i*-PDeA (intelligent Peak Deconvolution Analysis, Patent pending), offers the user unprecedented analysis methods. These include the resolution of co-eluted peaks into single components, the visualization of unseen peaks, and even the deletion of unnecessary peaks to simplify analysis.

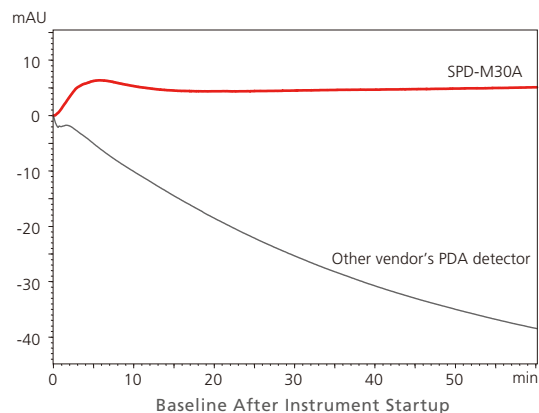


Stability: Temperature-controlled TC-Optics function for obtaining even more reliable data

The SPD-M30A further strengthens baseline stability via TC-Optics (Temperature Controlled Optics), a newly designed optical system. TC-Optics not only provides baseline stability during analysis, but also contributes to shortening the stabilization time required from instrument startup until analysis can start. As a result, it provides more reliable data, while improving total analytical throughput.



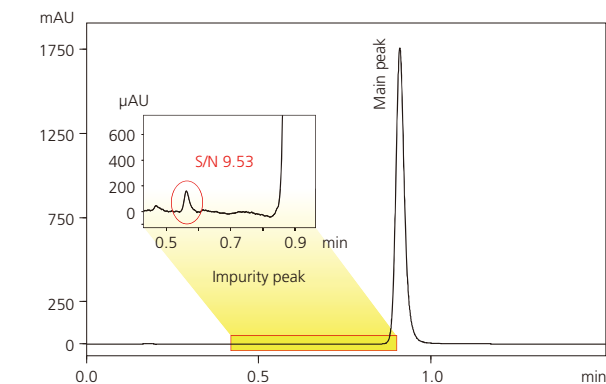
With the SPD-M30A, the baseline remains essentially constant even if the room temperature shifts.



In comparison to the competing PDA detector, the baseline stabilizes much faster after instrument startup.

Sensitivity and Resolution: Superior sensitivity and resolution are achieved with the capillary cell (SR-Cell)

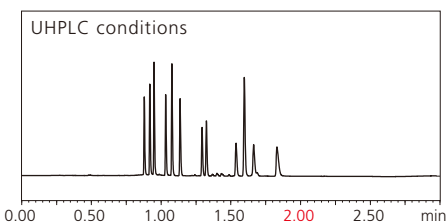
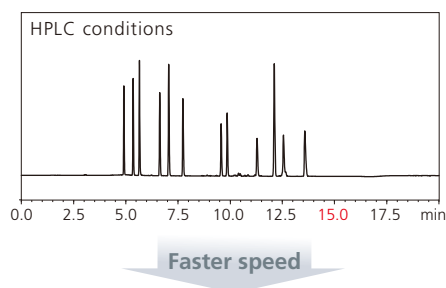
The SPD-M30A also features a newly design capillary cell (SR-Cell), which provides both high sensitivity and high resolution. With its excellent sensitivity and wide dynamic detection range, both the peak from the principal component and a 0.005% infinitesimal peak can be quantified simultaneously, as shown in the example below.



Example of analysis when adding impurities of 0.005% for a main component

Broad compatibility from a single system, from UHPLC to HPLC

The SR-Cell can be used for both UHPLC and HPLC. As a result, a Nexera SR system equipped with the SPD-M30A can be utilized for a wide range of analyses without replacing the cell.



Example of Faster Batch Analysis of Artificial Colorants

The High-End Nexera SR System: Nexera X2 Centered on the SPD-M30A



Equipped with the SPD-M30A, the Nexera SR is a high-end system in the Nexera X2 series. The cell and the optical system have been redesigned in detail, to achieve the highest level of sensitivity, low noise, and high resolution. In addition, it is equipped with the new *i*-PDeA function that obtains separated peaks through the deconvolution of co-eluted peaks (using the Shimadzu Workstation). With its high-sensitivity, high-resolution capabilities, the Nexera SR could be called the pinnacle of the Nexera X2 series.



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