ACQUITY QDa Detector with Extended Solvent Compatible Kit

Expand the mass detection into new application with THF and stronger solvent

The ACQUITY™ QDa™ Detector supports scientists with the established added benefits of mass detection including improved data and method confidence, enhanced detection sensitivity, and the potential for faster chromatographic analysis. These benefits can now be realized in laboratories where the analysis of a broader range of compounds using varied separation modes is required. This capability is possible when the ACQUITY QDa is combined with the Extended Solvent Compatible (ESC) enhancement, facilitating the use of THF and other newly supported organic solvents.

NEWLY SUPPORTED SOLVENTS

For a full list of solvents, additives, and buffers supported with an Extended Solvent Compatible ACQUITY QDa, please contact your local Waters representative. See the table below for an example of newly supported solvents.

Solvent	Concentration
Acetone	≤100%
Ethyl acetate	≤100%
Hexane	≤100%
Tetrahydrofuran (THF)	≤90%
Toluene	≤100%

ORDERING INFORMATION

Description	Part Number
*Extended Solvent Compatibility enhancement for ACQUITY QDa	186009006

**Contact your local Waters representative to learn if your existing ACQUITY QDa is compatible with an ESC enhancement.*

EXAMPLE APPLICATIONS

The benefits of the ACQUITY QDa are exemplified in the two examples shown below.

Hindered amine light stabilizers (HALS)

HALS are an important class of UV stabilizers commonly added to polymers. In Figure 1, the use of the ACQUITY QDa permits quantitation of HALS at lower levels than traditional detectors. It is necessary to use high levels of THF in the mobile phase gradient to ensure all of the compounds solubilize and elute.

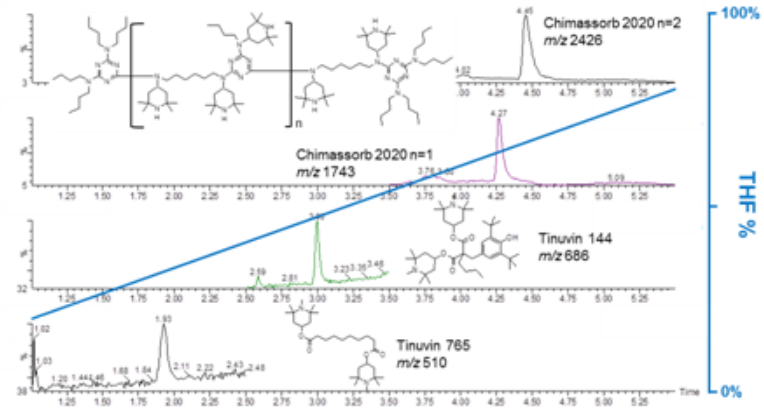

Figure 1. Chromatograms showing the separation on an ACQUITY H-Class of 4 different HALS with overlaid THF percentage of mobile phase. Detection and mass identification performed with an ACQUITY QDa.

Detection of impurities in OLEDs

Organic light-emitting diodes are a key display technology used in a variety of electronics. Trace level impurities can have serious negative impacts on OLED materials performance and safety attributes. Sensitive detection and quantification of any such impurity is therefore critical. Figure 2 highlights the separation of multiple impurities in a commercial OLED sample, with increased chromatographic resolution and selectivity from the use of THF and sensitivity and mass selectivity coming from the use of the ACQUITY QDa.

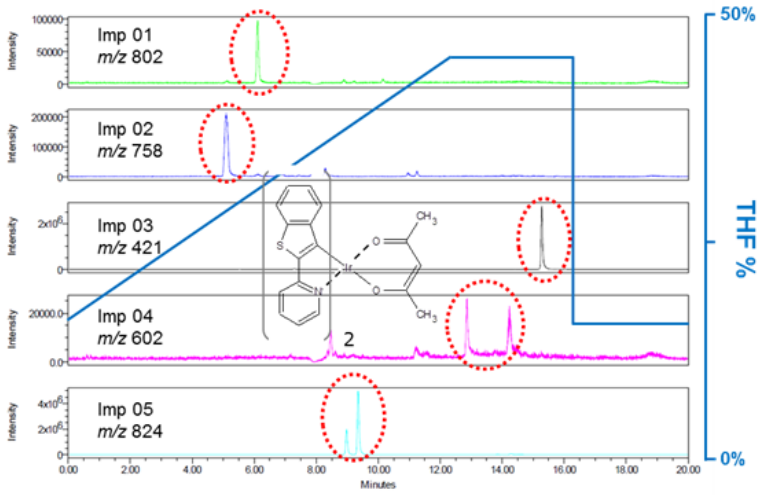

Figure 2. Chromatograms showing the separation and mass identification of 5 impurities in an OLED. Performed on an ACQUITY ARC with XBRIDGE BEH C18 and ACQUITY QDa

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