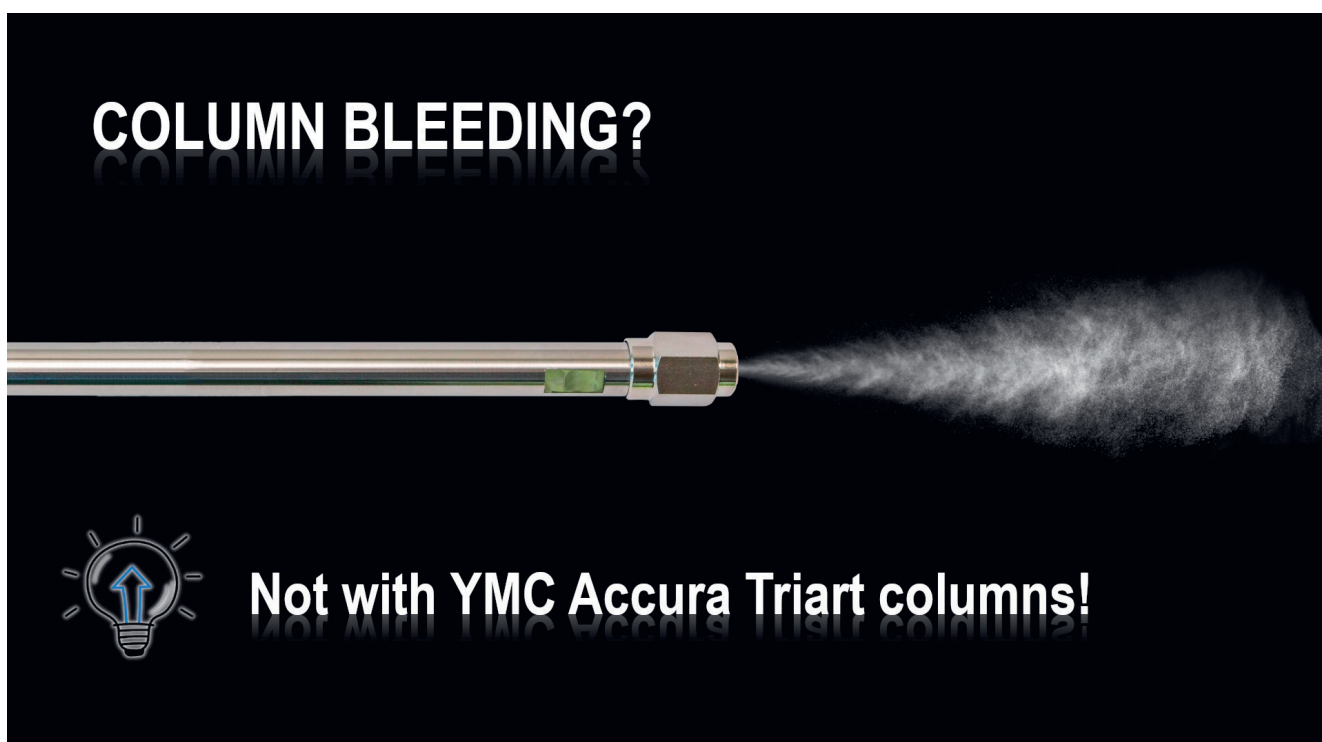


The ideal solution for high-sensitivity MS detection – truly (bio)inert columns from YMC

For precise analysis of phosphate-containing molecules (e.g. oligonucleotides, phospholipids/-peptides) or metal-coordinating small molecules, YMC Accura columns with inert coatings deliver exceptional performance. The bioinert coating eliminates peak tailing and carry-over, ensuring

high recovery rates by preventing interactions with metal surfaces. These columns are ready for use immediately after equilibration, eliminating the need for pre-conditioning—saving both time and precious samples.



Optimised for advanced MS detectors

As highly sensitive detectors, such as mass spectrometers (MS), become standard, column compatibility is critical. YMC-Triart stationary phases are already known for their high inertness. However, the newly introduced bioinert coated hardware adds another level of assurance, maintaining very low bleed and excellent compatibility with MS detection.

Table 1: Chromatographic conditions.

Columns:	YMC Accura Triart C18 (5 µm, 12 nm) 50 x 2.1 mm ID (bioinert coated stainless-steel hardware) YMC-Triart C18 (5 µm, 12 nm) 50 x 2.1 mm ID (stainless-steel hardware)
Part Nos.:	TA12S05-05Q1PTC TA12S05-05Q1PTH
Eluent:	A) water/formic acid (100/0.1) B) acetonitrile/formic acid (100/0.1)
Gradient:	5%B (0–1 min), 5–100%B (1–5 min), 100%B (5–10 min), 100–5%B (10–10.1 min), 5%B (10.1–12.5 min)
Flow rate:	0.42 mL/min
Temperature:	40 °C
Detection:	ESI positive/negative, TIC (mass range: m/z 50-1000)

As shown in Figure 1, there is no detectable difference in column bleed between the two hardware types, whether in positive or negative mode. Both columns exhibit minimal bleed, comparable to the baseline results without a column.

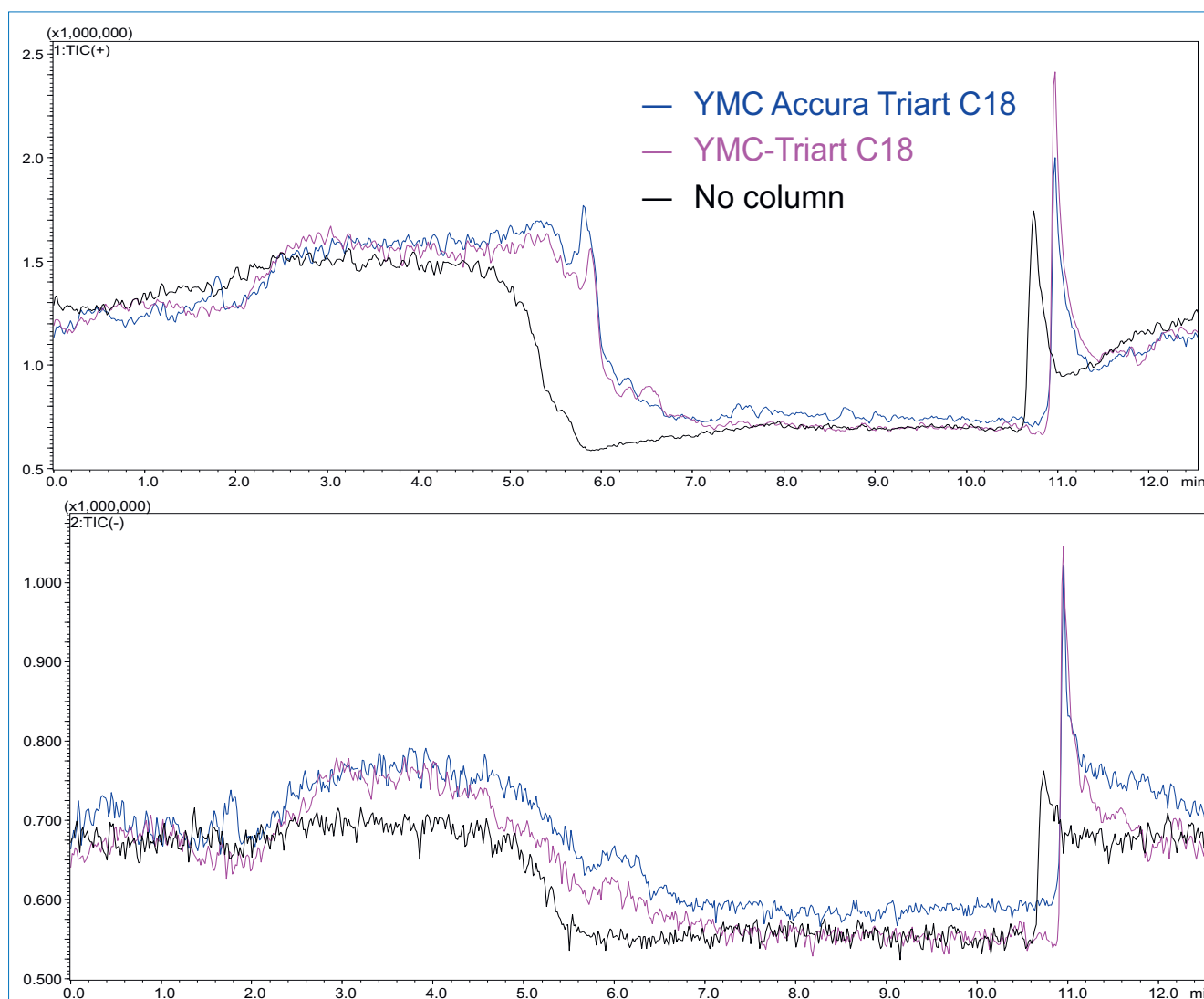


Figure 1: Total ion chromatograms in positive mode (top) and negative mode (below) using no column (black), a YMC-Triart C18 column (purple) and a bioinert coated YMC Accura Triart C18 column (blue).

Conclusion

These findings confirm that bioinert coated YMC Accura Triart columns perform on par with standard YMC-Triart columns for MS detection, making them an excellent choice for high-sensitivity applications.

Optimise your MS workflows with YMC Accura columns!

