

RESTEK

Rtx[®]-5MS

The True **LOW BLEED LEADER!**

Every column manufacturer claims to have the lowest bleed capillary column for use with GC/MS.

Restek decided to conduct a side-by-side test of several commercially available "MS" columns for bleed, response and performance. Our testing indicates that the Rtx[®]-5MS is the ideal column for GUMS applicatio&"requiring high sensitivity.

Bleed

The Rtx-5MS was compared to two other "MS" columns in an HP 5890 Series II GC with an HP 5971 Mass Selective Detector. Each column was tested under identical conditions with respect to both GC and MSD param-

eters (e.g. linear velocity, temperatures, tuning, etc.). Figure 1 shows the plot of mass 207, the most characteristic bleed ion of a polysiloxane stationary phase. The Rtx-5MS column exhibits lower bleed at both 325°C

and 360°C compared to the other two "MS" columns.

How important is having a column with low bleed?

Column bleed can ultimately effect sensitivity, spectral quality, and source contamination. When a column exhibits high bleed, the signal-to-noise (s/n) ratio is reduced. A low s/n ratio results in poor sensitivity and can decrease the quality of analyte spectra. A decrease in spectral quality complicates the interpretation of mass spectra that makes accurate compound identification difficult or impossible. Reduced column bleed is critical for ion trap mass

FIGURE 1: Rtx@GMS exhibits lower bleed than other "MS" columns!

Columns: Rtx & HP, & DB-5MS
30m, 0.25mm ID. 0.25um

Oven temp.: 50°C to 33°C @
15C/min. (hold 5 min.) to 360°C
@ 15C/min. (hold 5 min.).

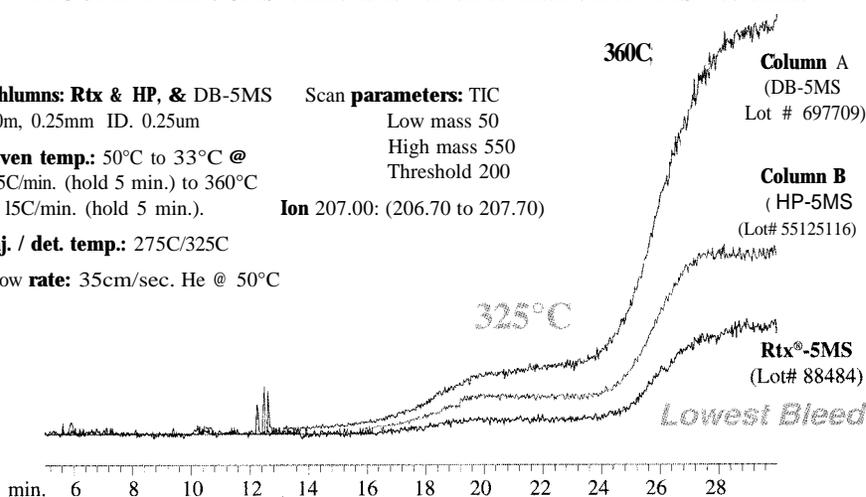
Inj. / det. temp.: 275C/325C

Flow rate: 35cm/sec. He @ 50°C

Scan parameters: TIC

Low mass 50
High mass 550
Threshold 200

Ion 207.00: (206.70 to 207.70)



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