
Possible causes of when an HPLC column appears to lack sensitivity in LCMS.

When customers report that a particular columns “lacks” sensitivity compared to other columns of similar phase and dimension and if the other performance parameters are similar (symmetry, retention time and efficiency) then I can think of only one reason for this observation.

The column has some contamination on it that is in the background and effecting the ionization of the sample. The contamination could be from when it was packed, the frits, or the customer did not flush the system well when the column was installed the first time.

Inherently when columns have similar performance it cannot effect sensitivity. If the column had poor loading column manufacturers would know that from the carbon analysis performed on the phase and the retention time would change.

