

Purge metals from HPLC system using EDTA or medronic acid – How To

In LCMS, metal ions can be responsible for distorted analyte peak shapes via chelating or other interactions.

If you determine that this is the cause of a peak issue, here is what you can do to eliminate metals from the system and see that they don't cause further problems.

1. Add 5-10 micro Molar EDTA or medronic acid to both A and B solvents of the mobile phase. Be sure that the concentration is micro Molar NOT milli Molar or there will be significant Issues.
2. Purge the system thoroughly with the new mobile phases.
3. Add 100 micro Molar to the sample.
4. Before Injecting the sample, inject a plug of 100 micro Molar EDTA or medronic acid onto the column. This will remove any metals that may be chelated at the stationary phase surface.