
Which HPLC column diameter should I use for LC-MS?

For most standard HPLC applications such as UV detection methods, a 4.6mm or 3.0mm I.D. is suitable. Lower diameters will present unnecessary problems for standard UV methods. For instance, the system tubing and especially the flow cell may cause **band broadening** with a 2.1mm column due to extra-column dispersion effects.

With most LC-MS (as well as some other detection methods), the smaller column diameter is generally necessary. LCMS systems are not equipped for the higher volumetric flow rates of 4.6mm ID columns. Efficient evaporation of the **eluent** solvent is achieved more readily on smaller diameter columns, which is required for MS detection. For this reason, we recommend a 2.1mm or smaller column diameter for these kinds of methods.

