Agilent Technologies

GC Troubleshooting Series Part Five: Split Peaks



Split peaks are almost always related to the injector / inlet.

Possible Cause: Injection Technique

Erratic injections can cause split peaks. Using an autosampler can help you avoid injection inconsistencies and issues.

Possible Cause: Poor Column Installation

If split peaks occur right after installing a column, check to see if you have the right position in the injector.

Possible Cause: Mixed Sample and Solvent

Using a single solvent for sample extraction and final dilution will help avoid peak splitting, especially for splitless injections.

Possible Cause: Poor Sample Focusing

Adjust the temperature, or use a retention gap, to focus your sample more.

Possible Cause: Sample degradation in the injector

Inlet conditions may have changed; check to be sure that temperature, flow, etc., are consistent.

Cause: Volatility Issue

Splitting in later eluting peaks indicate volatility issues. Check temperatures at transfer line, detector base, etc.