GC Troubleshooting Series
Part Three: Fronting Peaks

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Possible Cause: Column Overload

Column overload is the most common cause of fronting peaks.

Ways to prevent column overload:
- Decrease injection volume
- Dilute sample
- Increase split ratio

Possible Cause: Improperly Installed Column

Improper column installation is the next most common cause of fronting peaks. You can view a video about installing GC columns at www.agilent.com/chem/installgccolumn.

Possible Cause: Injection Technique

Using an autosampler is a good way to keep injections consistent and avoid problems like fronting peaks

Possible cause: Reversed Solvent Effect

If you’re running trace compounds, the compound is very soluble in the injection solvent. Something called the Reverse Solvent Effect can occur. Using a retention gap is the best way to deal with this. For more information on retention gaps (guard columns), visit www.agilent.com/chem/retentiongap.

To order a guard column, visit www.agilent.com/chem/duraguard