

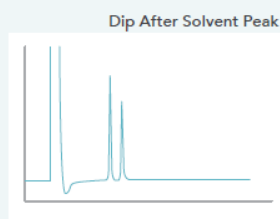
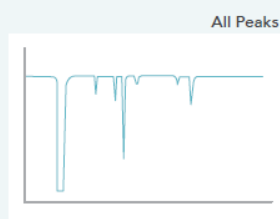
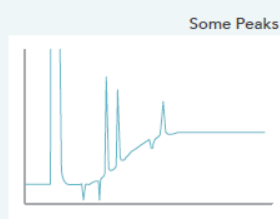


## عیب یابی در GC

مشکل شماره ۸: پیک‌های منفی

### Negative Peaks Some or all peaks dip below the baseline.

#### Symptom



#### Possible Cause

Detector overload in element-specific detectors such as ECD, NPD, FPD, etc. can produce both positive and negative peaks.

Dirty ECD detector can give a negative peak after a positive one.

Sample contaminants (hydrocarbons or other non-responders) are present when using ECD, PID, or NPD (thermoionic specific) detectors.

Incorrect polarity of the recorder connections results in nearly all peaks being negative.

Recorder-integrator wires reversed.

Sample injected onto the wrong column for dual-column setups.

Detector contamination.

Sample contamination.

Often normal for NPD (thermoionic specific) detectors.

#### Suggested Remedy

Have the compounds of interest arrive at the detector at a different time from the solvent or other compounds in high concentration.  $H_2$  produces negative peaks with a TCD and helium carrier gas.

Clean or replace the ECD detector.

and cleanup methods prior to injection.

Reverse polarity of recorder

Correct connections.

correct column.

Clean or bake out the detector.

For PID detectors, check that the sample has not been contaminated with methanol or water. If necessary, prepare a fresh sample.

No correction necessary.