

## FID Does Not Ignite

- Verify that the Lit Offset is  $\leq 2.0$  pA.
- Ensure that the FID temperature is high enough for ignition ( $>150$  °C). Agilent recommends  $>300$  °C.
- Check that the FID ignitor glows during ignition sequence. (See To Verify FID Ignitor Function During Ignition Sequence.)
- Check that the air and hydrogen pressures meet Agilent's recommendations (hydrogen  $> 35$  psi [210 kPa] and air  $> 55$  psi [380 kPa]). See the Agilent GC, GC/MS, and ALS Site Preparation Guide.
- Try increasing the supply pressures to the FID flow module. This makes the flame easier to light without changing the setpoints.
- Increase hydrogen flow and decrease or turn off makeup gas flow until ignition occurs, then reduce them toward the method values. Experiment for the best values.

Increasing hydrogen flow and decreasing makeup flow will help the FID ignite more easily. If it will light under these modified conditions, the cause could be a partially clogged jet, a weak ignitor, or a leak at the column fitting.

- Check for a plugged or partially plugged jet. (See To Check for a Plugged FID Jet.)
- Measure the FID flow rates. Actual flow rates should be within  $\pm 10\%$  of the setpoint. (See FID starting conditions.) The hydrogen:air ratio greatly impacts ignition. Nonoptimal flow settings can prevent flame ignition. (See To Measure a Detector Flow.)
- There could be a large leak in the system if the flame still will not light. Large leaks result in measured flow rates being different from actual flow rates, causing nonideal ignition conditions. Thoroughly leak check the whole system, especially the column fitting at the FID. (See Checking for Leaks).
- Check the column flow rate. (See To Measure a Column Flow.) Hydrogen flow should be greater than the sum of the column flow and makeup flow.
- If the analysis permits, substitute nitrogen for helium as makeup.