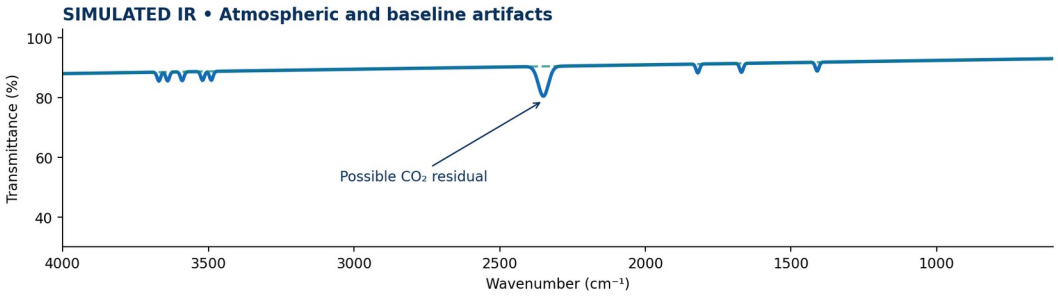
IR Spectrum Quality and Artifacts

Identify background, water vapor, CO_2, saturation and baseline problems.

STUDENT PRACTICE • SIMULATED DATA

Name: _____ Date: _____



All signals and numbers in this worksheet are simulated for teaching. GC uncorrected area percentages are not validated mole or mass compositions.

1. A narrow residual feature near 2350 cm^{-1} changes after recollecting the background. What is a plausible source?

2. Sharp, irregular signals appear at high wavenumber and between about 1900 and 1300 cm^{-1}. What check should you run?

3. A carbonyl band flattens at nearly zero percent transmittance. Why is using its original peak depth quantitatively unsafe?

4. An ATR spectrum has a strong, curved baseline and weak features. What sample and background issues would you investigate?

5. Is a baseline-corrected trace equivalent to a new measurement? Explain.

6. State a defensible report sentence for an IR trace with unresolved water-vapor interference.