

AP Chemistry Daily Videos
3.6 Deviation from Ideal Gas Law

Daily Video #1

1. What are the properties of real gases?
2. What is the effect of intermolecular forces (attractions) on gas behavior?
3. What is the effect of molecular volume on gas behavior?
4. What effect does the volume of a container have on gas behavior?
5. When are gases not ideal?

6. Pause the video at 5:29 and attempt the problem, then evaluate how you did and identify any errors

Which of the following gases will behave least ideally at a pressure of 1 atm and a temperature of 300 K

- (A) He
- (B) O₂
- (C) Cl₂
- (D) HF

7. Pause the video at 6:16 and attempt the problem, then evaluate how you did and identify any errors

At what set of conditions of temperature and pressure will a gas behave most ideally?

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|-----|------------------------------|-------------------------------|
| (A) | $\overset{\text{I}}{1000}$ K | $\overset{\text{P}}{100}$ atm |
| (B) | 1000 K | 1 atm |
| (C) | 200 K | 100 atm |
| (D) | 200 K | 1 atm |