| Advanced Chemistry |
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| Effusion & Diffusion WS |

| NAME: | PER: | |
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| INWINE. | I LN, | |

Instructions: Complete the following problems. SHOW ALL WORK in the empty space below the questions. Remembers the units. Round to the correct number of significant figures if needed.

Concept Questions

| 1. Circle the property of a gas that would | effuse out of the hole bett | er for each letter. |
|---|------------------------------|---------------------------|
| a) Heavy or light molecules | | |
| b) Smaller or large molecules | | |
| c) Slower or faster molecules | | |
| 2. Diffusion of a gas will have a short mear a long mean free path with | | pressure, and |
| Graham | n's Law of Effusion | |
| 3. A sample of oxygen gas (O_2) was found unknown gas. The molar mass of the unknown | | |
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| 4. Helium effuses through a porous cylinde its molar mass of the unknown gas? | er 3.200 times faster than a | n unknown gas. What is |
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| 5. A tank containing both Cl_2 and SF_6 gase of Cl_2 to the rate of effusion of SF_6 is | | o of the rate of effusion |
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| 6. A carbon dioxide molecule travels at 45.0 m/s at a certain temperature. At the same temperature, find the average speed of an oxygen molecule (O_2). | | |
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