

Report No. (8)

Graham's Law of Gas Diffusion

Student Names: Section No:

The objective of the experiment:

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Reaction equation:

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Graham's Law:

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Results and calculations:

Distance moved by HCl gas (L_{HCl}) =

Distance moved by NH_3 gas (L_{NH_3}) =

Molar masses (g/mol): H =1 , N =14 , C =12 , Cl =35.5

Calculation:

1- The theoretical ratio between the rate of diffusion for the two gases (Y):

2- The measured ratio between the rate of diffusion for the two gases (X):

3- Error percentage

Question;

Unknown gas faster two times than methane (CH_4), calculate its molar mass?