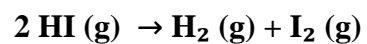


Measuring Reaction Rates and Stoichiometry

Example One

Consider the decomposition of hydrogen iodide as shown below.



Suppose that HI was decreasing at a rate of 12 M/s.

What is the rate at which H₂ and I₂ are produced?

What is the reaction rate?

Example Two

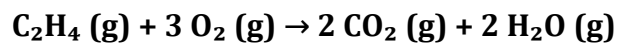
The chemical N_2O_5 decomposes according to the following equation:



If at a particular instant N_2O_5 is decomposing at a rate of $6.0 \times 10^{-6} \text{ M/s}$, what is the rate of production of (a) NO_2 , (b) O_2 ?

Example Three

Ethylene combusts according to the equation shown below



If the concentration of C_2H_4 is decreasing at a rate of 0.036 M/s , what are the rates of change in concentrations of CO_2 and H_2O ?