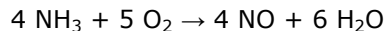


Reaction**Initial Moles**

NH ₃ :	1	moles
O ₂ :	1	moles
NO:	0	moles
H ₂ O:	0	moles

Final Moles of NH₃: moles

Fractional NH₃ Conversion:

$$f_k = \frac{n_k^0 - n_k}{n_k^0}$$

Smallest Value Largest Value

Extent (using $i = \text{NH}_3$): moles

$$\xi_j = \frac{(n_i - n_i^0)_j}{\nu_{i,j}}$$

Final Moles of O₂: moles

Final Moles of NO: moles

Final Moles of H₂O: moles

$$n_i = n_i^0 + \nu_{i,j} \xi_j$$

Fractional O₂ Conversion:

Extent using $i = \text{O}_2$): moles

Extent (using $i = \text{NO}$): moles

Extent (using $i = \text{H}_2\text{O}$): moles

Instructions:

1. Enter initial moles for each of the four species in the light green cells.
2. Enter formulae in the light blue cells to compute the corresponding quantities.
3. Enter a variety of values for the final moles of O₂ and observe the results.
4. Determine the range of possible values of the quantities in the blue boxes.
5. Change the initial moles and repeat.
6. Summarize what you discovered.