

Problem 6.2

Problem Purpose

This problem will help you determine whether you have mastered the learning objectives for this unit. It also introduces something new that wasn't considered in the reading or example problems.

Problem Statement

Repeat Example 6.2, but instead of generating the generalized rate expression from the rate of formation of NO, generate it from the rate with respect to either O₂ or N₂. Upon doing so, you will find that you get a different rate expression than that obtained in Example 6.2. A reaction can't have two different rate expressions that both accurately describe how the rate varies with the environmental variables. Discuss the validity of these rate expressions, explaining how they are consistent with the definitions of the generalized rate and the rate with respect to a participant species.