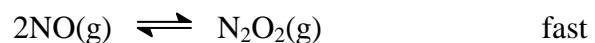


The mechanism for this reaction has been postulated to be that below.



Work out the rate law expected for this mechanism and hence show that it is consistent with the experimental rate law and the chemical equation.

**Marks****4**

The reaction is exothermic. Draw the potential energy vs reaction coordinate diagram for this mechanism, labelling all species that can be isolated.