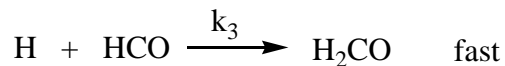
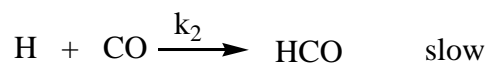
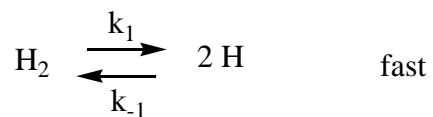


2. The following mechanism for the reaction between H_2 and CO to form formaldehyde, H_2CO , has been proposed.



(a) Write the balanced equation for the overall reaction.

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(b) What is the rate law predicted by this mechanism?

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(c) The observed rate law is found to be half order with respect to H_2 and first order with respect to CO . Write the observed rate law.

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(d) Is the proposed mechanism consistent with the observed rate law? You must justify your answer.

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