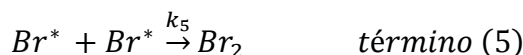
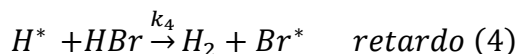
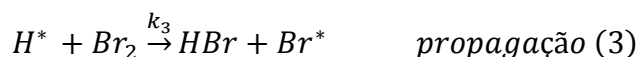
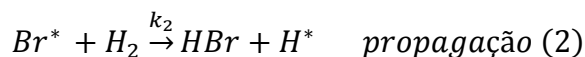


**Exercícios – lei de velocidade**

1. Para a reação  $Br_2 + H_2 \rightarrow 2HBr$  tem como mecanismo proposto:

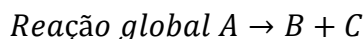


Deduz a lei de velocidade que esteja de acordo com o que foi observado experimentalmente, este mecanismo é válido?

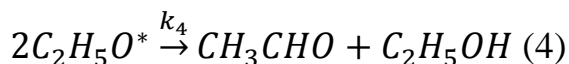
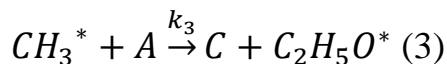
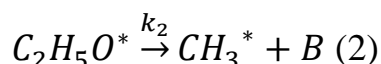
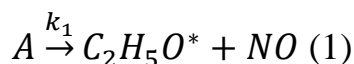
Foi observado que:

$$\frac{1}{2} r_{HBr} = \frac{k[H_2][Br_2]^{1/2}}{1 + k' \frac{[HBr]}{[Br_2]}}$$

2. O mecanismo para pirólise de  $C_2H_5ONO_2$  (A) produzindo formaldeído  $CH_2O$ (B) e nitrito de metila  $CH_3NO_2$  (C) além de outros produtos conforme foi proposto:

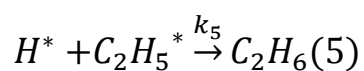
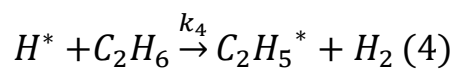
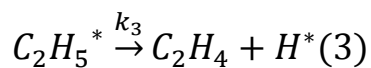
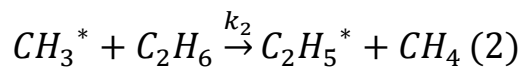
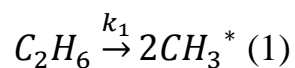


*Mecanismo:*



Informações os produtos  $NO$ ,  $CH_3CHO$  e  $C_2H_5OH$  são desconsiderados, e as etapas (2) e (3) são etapas de propagação. Deduza a lei de velocidade para formação do produto B.

3. Baseado no seguinte mecanismo:



Expresse a lei de velocidade para produção de metano.