|  |  |
| --- | --- |
| Promoter state (T,C,N) | Relative occupancy |
| (0,0,0) | $\left[D\right]$  |
| (1,0,0) | $\left[DT\right]=\frac{\left[D\right]\left[T\right]}{c\_{0}}e^{-ε\_{DT}}=\frac{\left[D\right]\left[T\right]}{K\_{DT}}$  |
| (0,1,0) | $\left[DC\right]=\frac{\left[D\right]\left[C\right]}{c\_{0}}e^{-ε\_{DC}}=\frac{\left[D\right]\left[C\right]}{K\_{DC}}\ll \left[D\right]$  |
| (0,0,1) | $\left[DN\right]=\frac{\left[D\right]\left[N\right]}{c\_{0}}e^{-ε\_{DN}}=\frac{\left[D\right]}{K\_{DN}}$  |
| (1,1,0) | $\left[DTC\right]=\frac{\left[D\right]\left[T\right]\left[C\right]}{c\_{0}^{2}}e^{-\left(ε\_{DT}+ε\_{DC}+ε\_{TC}\right)}≈\frac{\left[D\right]\left[T\right]\left[C\right]}{c\_{0}^{2}}e^{-\left(ε\_{DT}+ε\_{TC}\right)}=\frac{\left[D\right]\left[TC\right]}{K\_{DT}}$  |
| (1,0,1) | $\left[DTN\right]=\frac{\left[D\right]\left[T\right]\left[N\right]}{c\_{0}^{2}}e^{-\left(ε\_{DT}+ε\_{DN}\right)}=\frac{\left[D\right]\left[T\right]}{K\_{DT}K\_{DN}}$  |
| (0,1,1) | $\left[DCN\right]=\frac{\left[D\right]\left[C\right]\left[N\right]}{c\_{0}^{2}}e^{-\left(ε\_{DN}+ε\_{DC}+ε\_{CN}\right)}=\frac{\left[DN\right]\left[C\right]}{K\_{CN}}\ll \left[DN\right]$  |
| (1,1,1) | $\left[DTCN\right]≈\frac{\left[D\right]\left[T\right]\left[C\right]\left[N\right]}{c\_{0}^{3}}e^{-\left(ε\_{DT}+ε\_{DN}+ε\_{TC}+ε\_{CN}\right)}=\frac{\left[D\right]\left[TC\right]}{K\_{DT}K\_{DN}}e^{-ε\_{CN}}≈\frac{\left[D\right]\left[TC\right]}{K\_{DT}K\_{DN}}$  |