

Modèle théorique

TDSE $i\hbar \frac{\partial}{\partial t} \Psi(\mathbf{R}, \mathbf{r}, t) = [\hat{\mathcal{H}}_0 + V_{\text{int}}] \Psi(\mathbf{R}, \mathbf{r}, t)$

Hamiltonien sans champ $\left\{ \begin{array}{l} \hat{\mathcal{H}}_0 = \hat{T}_n + \frac{1}{R} + V_{12}(\mathbf{r}_1 - \mathbf{r}_2) + \sum_{i=1,2} \hat{h}_i \\ \hat{h}_i = -\frac{\hbar^2}{2m} \nabla_i^2 + V_{\text{en}}(\mathbf{R}, \mathbf{r}_i) \end{array} \right.$

Interaction $\left\{ \begin{array}{l} V_{\text{int}}(\mathbf{r}_1, \mathbf{r}_2, t) = -e(\mathbf{r}_1 + \mathbf{r}_2) \cdot \mathbf{E}(t) \\ \mathbf{E}(t) = E_0 f(t) \cos(\omega t + \varphi) \hat{e} \end{array} \right.$

CEP 

$$\begin{array}{l} \lambda = 800 \text{ nm} \\ \hbar\omega \sim 1,55 \text{ eV} \\ \tau \leq 12 \text{ fs} \\ \mathbf{I} \leq 8 \cdot 10^{14} \text{ W/cm}^2 \end{array}$$