$$\hat{H}_{KS} = \hat{T}_0 + \hat{V}_H + \hat{V}_{ext} + \hat{V}_{xc}$$

$$= -\frac{\hbar^2}{2m_e} \nabla_i^2 + \frac{e^2}{4\pi\epsilon_0} \int \frac{\rho(\mathbf{r}')}{|\mathbf{r}' - \mathbf{r}|} d\mathbf{r}' + V_{ext} + V_{xc}$$

$$= \frac{c_{ass}}{2m_e} \nabla_i^2 + \frac{e^2}{4\pi\epsilon_0} \int \frac{\rho(\mathbf{r}')}{|\mathbf{r}' - \mathbf{r}|} d\mathbf{r}' + V_{ext} + V_{xc}$$
exchange—correlation potential quantum-mechanical effects (are hidden here)