



$$\left[\sum_{i,j,k,l} c_{ijkl} \frac{\partial^4}{\partial x_i \partial x_j \partial x_k \partial x_l} + \sum_{i,j,k} c_{ijk} \frac{\partial^3}{\partial x_i \partial x_j \partial x_k} + \sum_{i,j} c_{ij} \frac{\partial^2}{\partial x_i \partial x_j} + \sum_i c_i \frac{\partial}{\partial x_i} \right] \Psi(\mathbf{r}; \mathbf{R}) = E_0 \Psi(\mathbf{r}; \mathbf{R}) \quad E_{\text{Hartree}} = \sum_{ab} \left(E_{\text{kin}}^{(ab)} + E_{\text{ext}}^{(ab)} \right) \quad E_{\text{CC}} = \sum_{ab} f_{ab} c_i^a + \frac{1}{2} \sum_{ijkl} \langle ij || ik \rangle c_i^a c_j^b + \frac{1}{2} \sum_{ijkl} \langle ij || ik \rangle c_i^a c_j^b \quad |\Psi\rangle = c_0 |\Phi_0\rangle + \sum_i \sum_a c_i^a |\Phi_i^a\rangle + \sum_{ij} \sum_{ab} c_{ij}^{ab} |\Phi_{ij}^{ab}\rangle + \sum_{ijk} \sum_{abc} c_{ijk}^{abc} |\Phi_{ijk}^{abc}\rangle + \dots \quad \text{FC} = \text{SCF} \quad E_{\text{on}} = \frac{1}{2} \sum_{ijkl} c_{ij}^{ab}(c) D_{ab}^{cd} \left[c_{cd}^{ab}(c) + c_{cd}^{ab}(d) \right]$$

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