$$\frac{1}{2M}[\mathbb{P} - Q\,\mathbb{A}(x^1, x^2, x^3)]^2 + Q\phi(x^1, x^2, x^3)$$

$$\chi^1 = \chi(\varepsilon) = \chi(4\varepsilon),\ \chi^2 = \chi(2\varepsilon),\ \chi^3 = \chi(3\varepsilon)$$

$$M = m\varepsilon\alpha^2 \ ,\quad Q = m$$

$$P^1 = -i\hbar\frac{\partial}{\partial x^1} \ ,\quad P^2 = -i\hbar\frac{\partial}{\partial x^2} \ ,\quad P^3 = -i\hbar\frac{\partial}{\partial x^3}$$

$$A^1(x^1, x^2, x^3) = \alpha(x^2 - x^1)$$
$$A^2(x^1, x^2, x^3) = \alpha(x^3 - x^2)$$
$$A^3(x^1, x^2, x^3) = \alpha(x^1 - x^3)$$

$$\phi(x^1, x^2, x^3) = -\frac{1}{2\varepsilon}[(x^2 - x^1)^2 + (x^3 - x^2)^2 + (x^1 - x^3)^2]$$

$$B^1 = \partial_2 A^3 - \partial_3 A^2 = -\alpha \qquad E^1 = -\partial_1\phi = \frac{1}{\varepsilon}(2x^1 - x^2 - x^3)$$
$$B^2 = \partial_3 A^1 - \partial_1 A^3 = -\alpha \qquad E^2 = -\partial_1\phi = \frac{1}{\varepsilon}(2x^2 - x^3 - x^1)$$
$$B^3 = \partial_1 A^2 - \partial_2 A^1 = -\alpha \qquad E^3 = -\partial_1\phi = \frac{1}{\varepsilon}(2x^3 - x^1 - x^2)$$