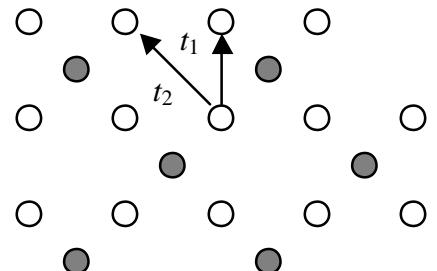


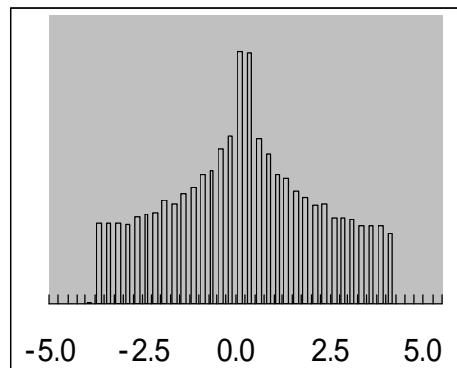
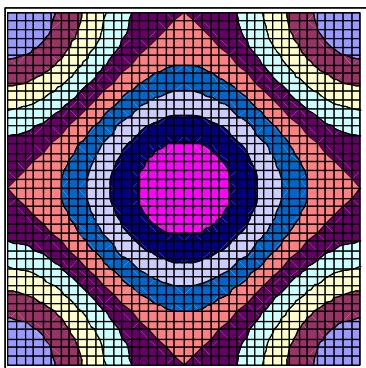
酸素サイト()のみの次近接までを強結合近似で計算してみると

$$\begin{aligned} \mathbf{e}(\vec{k}) &= \sum_{\vec{x}=(\pm a, 0), (0, \pm a), (\pm a, \pm a)} t(\vec{x}) e^{i\vec{k} \cdot \vec{x}} \\ &= t_1 \cdot (\cos k_x a + \cos k_y a) + t_2 \cdot (\cos k_x a \cdot e^{ik_y a} + \cos k_x a \cdot e^{-ik_y a}) \end{aligned}$$

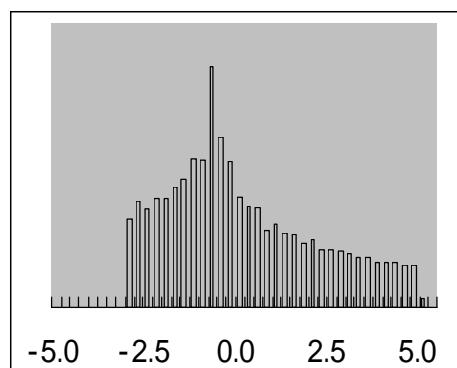
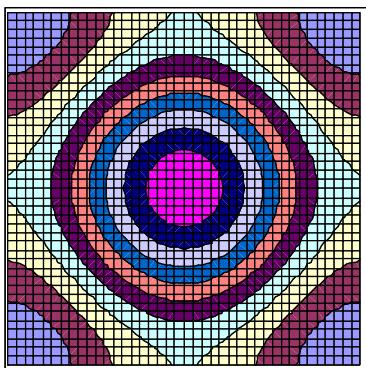


となるので t_1, t_2 の比を変えて見ると

$$t_1 : t_2 = 1:0$$



$$t_1 : t_2 = 1.0 : 0.2$$



$$t_1 : t_2 = 1.0 : -0.2$$

