

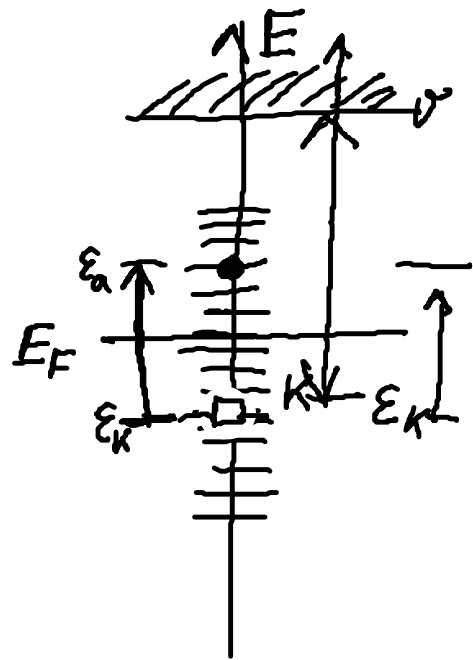
$$-I_k = E_g^{(N)} - E_k^{(N-1)} = \epsilon_k$$

$$E_{ak}^{(N)} - E_k^{(N-1)} = h_a + \sum_{e \neq k} C_{ae} - \sum_{e \neq k} A_{ae}$$

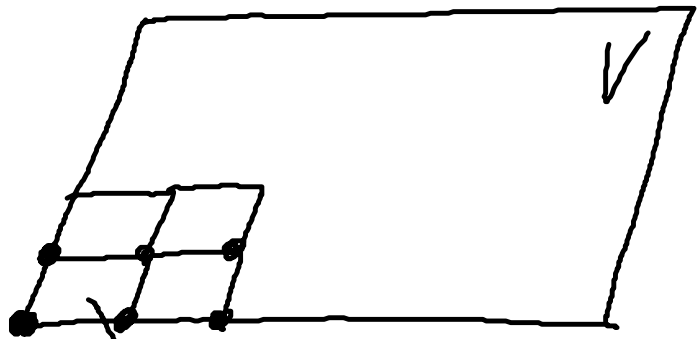
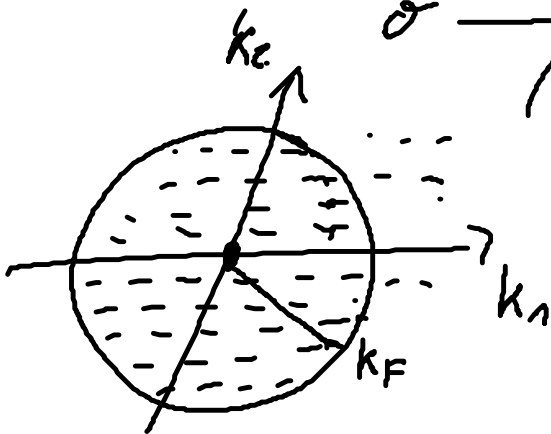
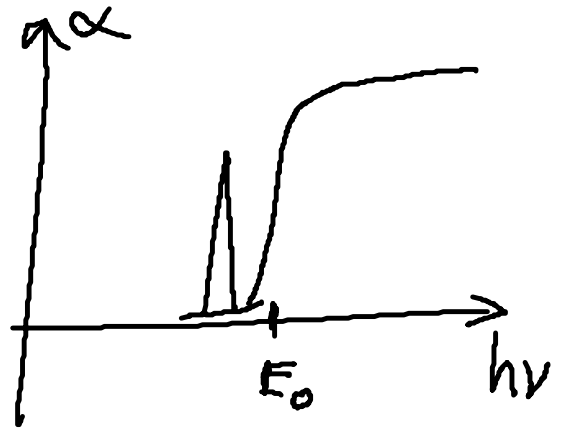
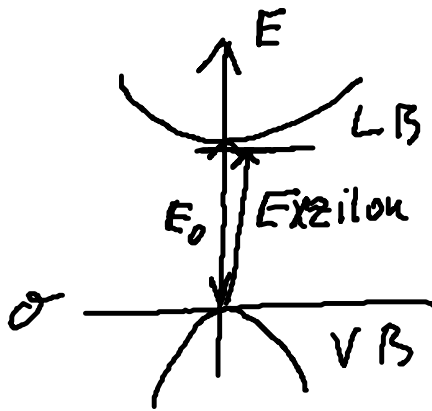
$$\Rightarrow h_a + \sum_e C_{ae} - \sum_e A_{ae} - C_{ak} + A_{ak}$$

$$\Rightarrow E_{ak}^{(N)} - E_g^{(N)} + \epsilon_k = \epsilon_a - C_{ak} + A_{ak}$$

$$E_{ak}^{(N)} - E_g^{(N)} = \epsilon_a - \epsilon_k - C_{ak} + A_{ak}$$



Halbleiter



$$\Delta k^3 \sum_{\vec{k}} \left(\frac{b_1}{L}, \frac{b_2}{L}, \frac{b_3}{L} \right)$$