$\therefore N_{A2} = [p_0 - \frac{N_{A1}}{1+2\exp(\frac{E_{A1}-E_F}{k_0T})}] + 2\exp(\frac{E_{A}-E_F}{k_0T})$.

代入数据，$N_{A2} = 2.2\times10^{15}/cm^3$. 铟：$2.2\times10^{15}/cm^3$.

1、(1) 应为 2.1 ns

(2) 加速比为 $(\frac{2.1}{7}\times\frac{1.1+1.6+1.1+2.1+1.5}{7})^{-1} = 3.15$.

(3) 加速比为 $(\frac{1}{K}\times\frac{7+(K-1)\times0.1}{7})^{-1} = \frac{\frac{7}{K}+(1-\frac{1}{K})0.1}{7}$

$K\to+\infty$，加速比 $\to 70$.