AD2

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Contents

ABSTRACT

1 Introduction

2 Results

2.1 Chap 1

$$\sigma = \frac{ne^2\tau}{m^*} \tag{1}$$

At it is a monovalent metal and the FCC-Unit cell contains 4 atoms the concentration of the conduction electrons N can be calculated as:

$$N = \frac{4}{a^3} =$$

So for the collision time τ follows:

$$\tau = \frac{\sigma \cdot m^* \cdot a^3}{4e^2}$$

Fermi

$$f(E) = \frac{1}{e^{(E-E_F)/kT}} \tag{2}$$

Cyclotron

$$-e(\vec{v} \times \vec{B}) = m\frac{d\vec{v}}{dt} \tag{3}$$

Plasma Frequency

$$w_P = \frac{Ne^2}{\epsilon_L m^*} \tag{4}$$

2.2 Chap 2

2.3 Chap 3

3 Conclusion

References

[1] M.A. Omar, *Elementary Solid State Physics: Principles and Applications*, Addison-Wesley, London, 1993.

[2] Charles Kittel, *Introduction to Solid State Physics*, 7th ed., Wiley, 1996

List of Tables

List of Figures