Study notes for lecture 15, Kinetic Theory, Chapter 14 pages 391-404 and 407

 The following parts are of special/central importance. (2012-02-08)

1. Maxwell velocity distribution, the arguments leding up to eq 15.11

2. Learn figure 14.2 and figure 14.3 and how they differ expressed in eq 15.12

3. concept of mean free path (eq 15.13)

4. diffusion Ficks law eq 15.19

5. thermal conduction eq 15.27

6. viscosity eq 15.32 and 15.34

7. relation between diffusion, thermal conduction and viscosity expressed in Table 14.3 in rightmost column.

8. Detailed balance eq 15.55. A centrepiece in Monte Carlo simulations. The Metropolis algorithm fullfills detailed balance.