

Fall 2013

ECE 656: ELECTRONIC TRANSPORT IN SEMICONDUCTORS

Week 1 References

For those who want to see a little more about realistic bandstructures (and scattering, which we'll discuss later), the following two references are good places to start.

- [1] J.Y. Tang and Karl Hess, "Impact ionization of electrons in silicon (steady state)," *J. Appl. Phys.*, Vol. 54, pp. 5139-5144, 1983.

- [2] Massimo V. Fischetti, "Monte Carlo Simulation of Transport in Technologically Significant Semiconductors of the Diamond and Zinc-Blende Structures-Part I: Homogeneous Transport," *IEEE Trans. Electron Dev.*, Vol. 38, pp. 634-649, 1991.