For alternative treatments of the Boltzmann Transport Equation, see the following classic texts.


Another introductory treatment of the BTE can be found in Chapter 7 of the text below.


We showed that an equilibrium solution to the BTE demonstrates that to maintain equilibrium at all energies, the Fermi level and temperature must be constant. Nanostructures can be built with a single energy channel for conduction. For an interesting discussion of “energy-specific equilibrium,” see:


When the RTA cannot be used, the near-equilibrium transport equations still have the same form, but to evaluate the transport coefficients, numerical methods are necessary. To see how this is done, consult the chapter by Rode: