1D Transmission (CBR)

In this tutorial we calculate the transmission coefficient $T(E)$ as a function of energy E. We consider the following pedagogical examples we learn in undergraduate quantum mechanics courses.

- Single potential barrier
- Step potential
- Quantum well
- Double potential barrier

To calculate transmission spectra with nextnano++, we use **C**ontact **B**lock **R**eduction (CBR) method (see also documentation). This tutorial is an analog of nextnano3 tutorial.

Reference

- Ballistic Quantum Transport using the Contact Block Reduction (CBR) Method - An introduction, S. Birner, C. Schindler, P. Greck, M. Sabathil, P. Vogl, Journal of Computational Electronics (2009)

Single Potential Barrier

Step Potential

Quantum Well

Double Potential Barrier