

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 the beginning of quantum mechanics course.

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

To obtain transmission spectra, we use **Contact Block Reduction (CBR)** method (see [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

From:
<https://nextnano-docu.northeurope.cloudapp.azure.com/dokuwiki/> - **nextnano.NEGF - Software for Quantum Transport**

Permanent link:
https://nextnano-docu.northeurope.cloudapp.azure.com/dokuwiki/doku.php?id=np:transmission:transmission_in_1d_structures&rev=1571395568

Last update: 2019/10/18 11:46