Development of user-friendly software for the simulation of electronic and optoelectronic semiconductor nanodevices such as quantum cascade lasers, nanotransistors, LEDs, solar cells, resonant tunneling diodes, quantum dots, HEMTs and infrared detectors.

nextnano GmbH is a spin-off from the Walter Schottky Institute of the Technische Universität München.

**QCLs**

Operating principle
Photons are emitted via intersubband transitions. Electrons tunnel resonantly into the quantum well of the next cascade.

Electron wavefunctions
Each semiconductor layer is only a few atomic layers thin. The laser wavelength is designed by "Wavefunction Engineering".
Your digital twin for the simulation of THz and Mid-IR Quantum Cascade Lasers

Quantum transport calculations using nonequilibrium Green’s functions (NEGF)

nextnano
Software for semiconductor nanodevices

Local Density of States
Electron Density
Gain

Give it a go! Get your free test license at www.nextnano.com!