

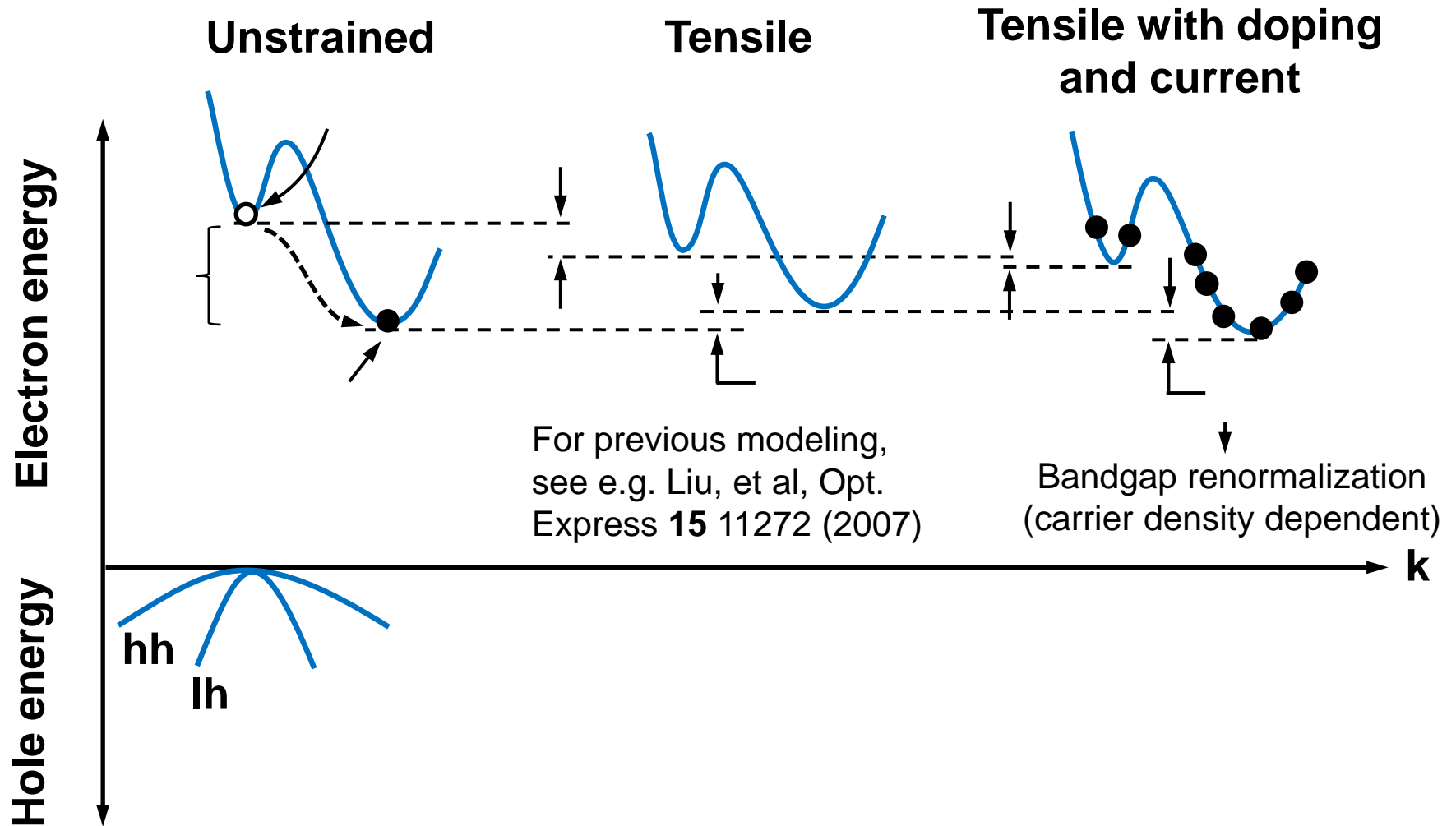
Ge-on-Silicon: Lasers and Beyond

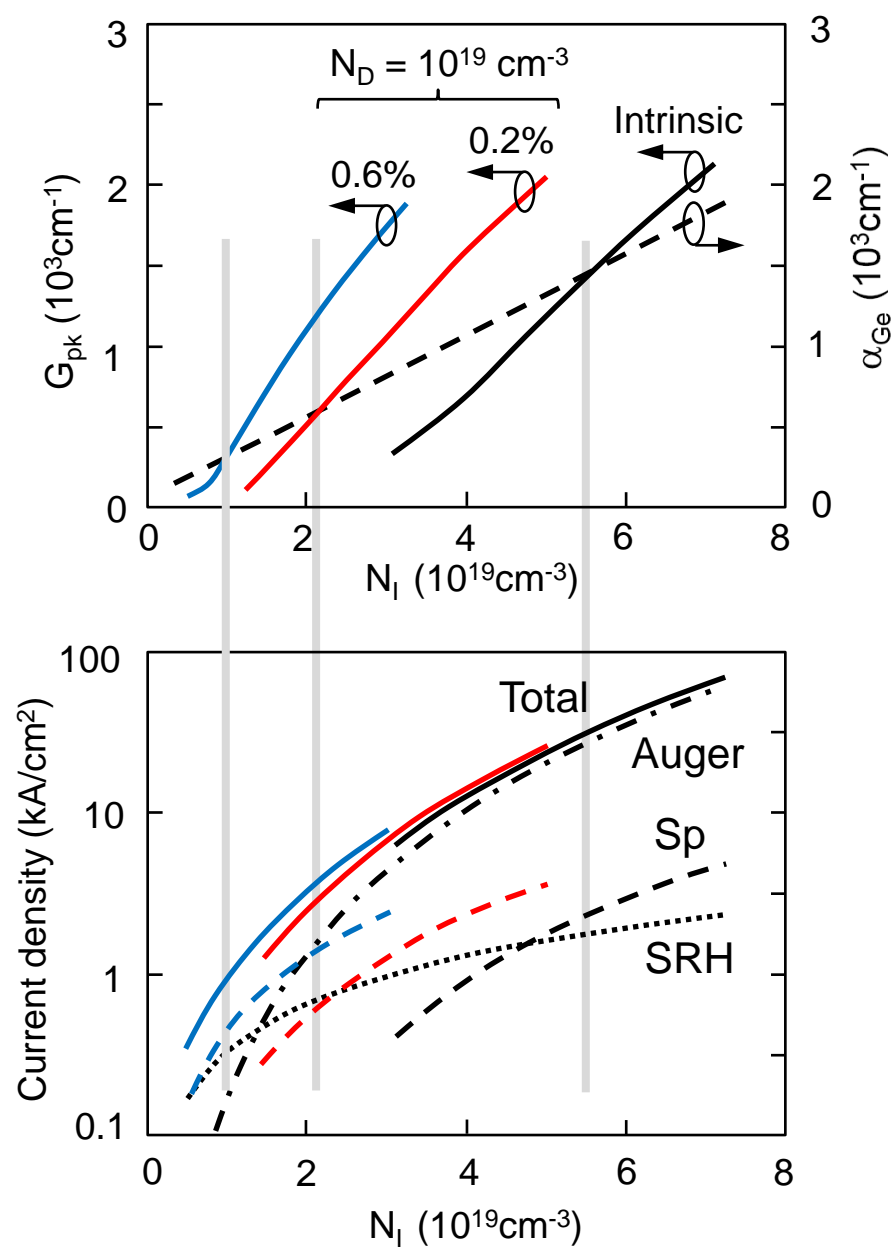
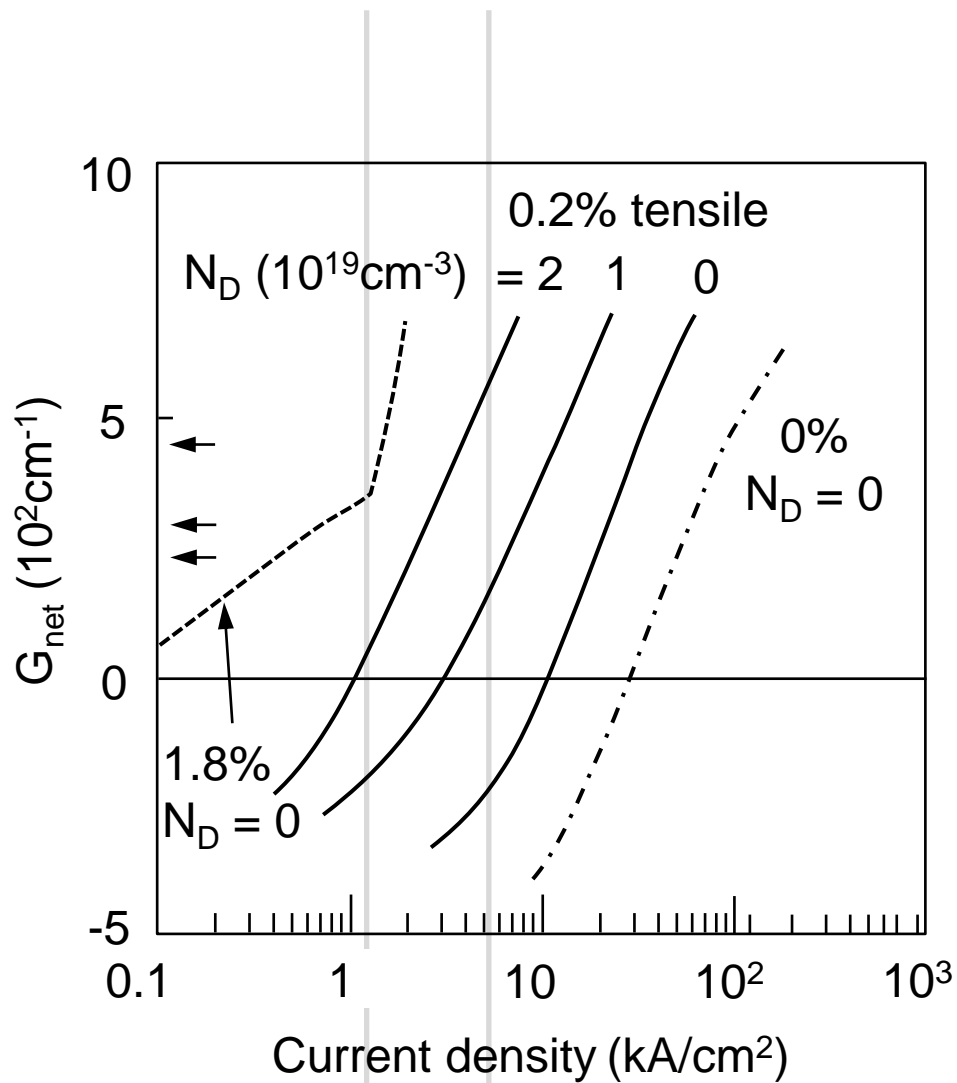
Weng Chow, Sandia National Labs, Albuquerque, New Mexico, USA

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Laser Gain in a Ge-on-Si

Weng Chow, *Sandia National Laboratories, Albuquerque, NM, USA*

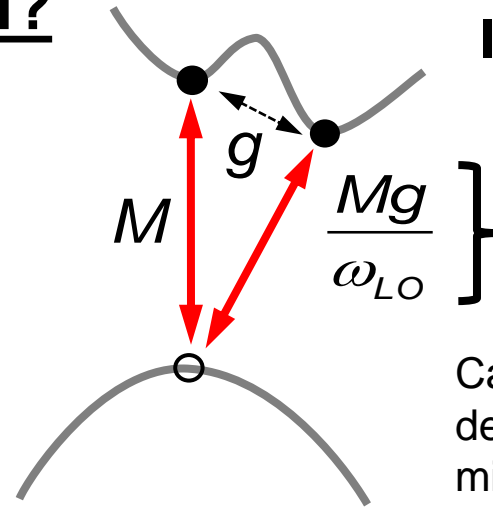




?Interesting dynamics or quantum optics?

Optical buffer in Si?

LWI in Si?



Indirect bandgap systems

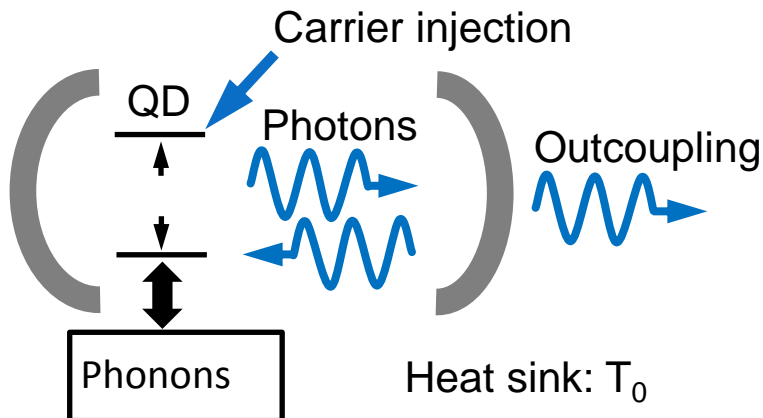
Phonon assisted strong light-matter coupling

Carmele, Kabuss and Chow, "Highly-detuned Rabi oscillations in a quantum-dot-microcavity system", PRB rapid comm. (TBR)

Peltier cooling in the strong coupling limit?

Phonon-assisted strong-coupling can change
phonon population and statistics

Substrate temperature



Anti-Stokes ($\omega > \Omega$)

