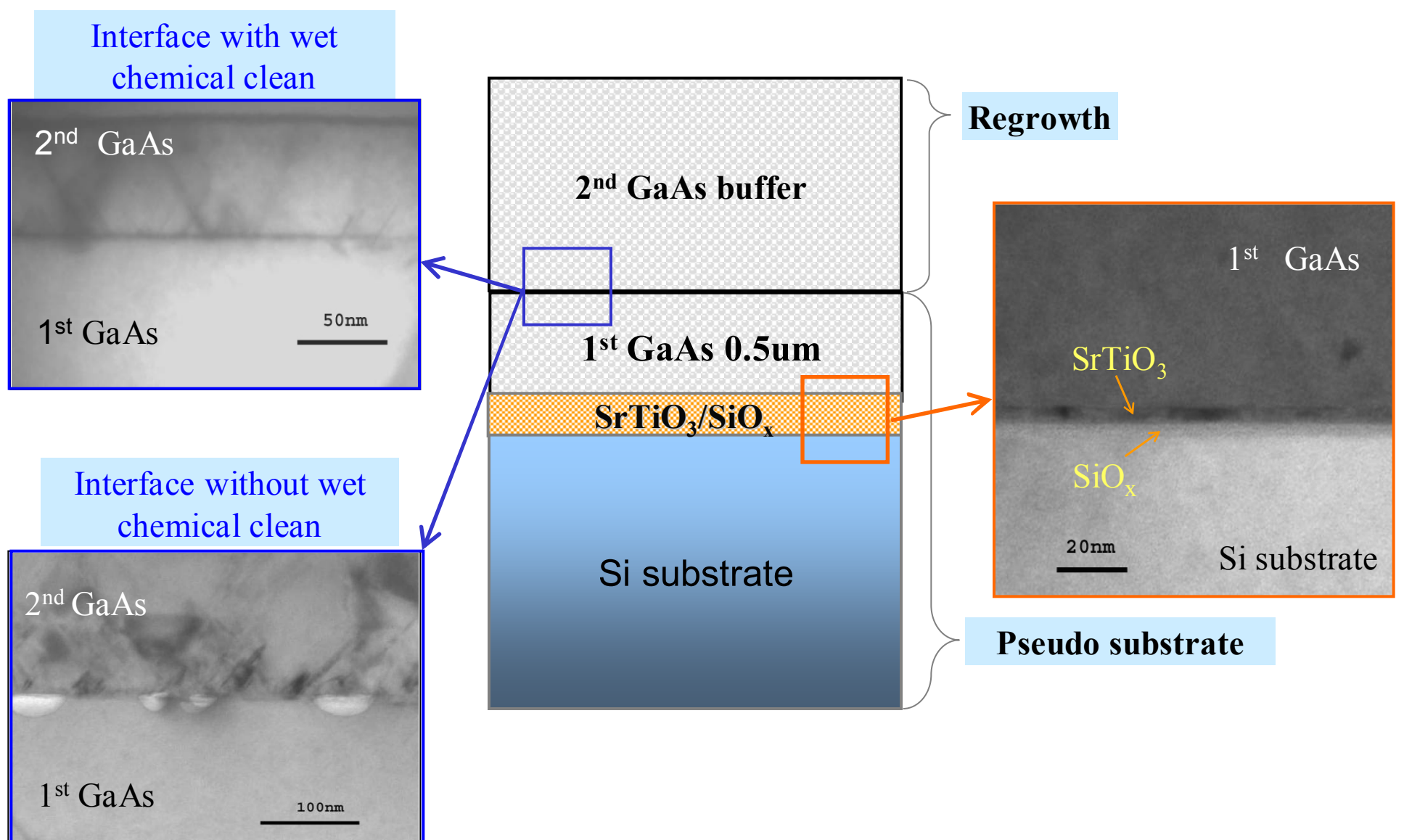


Heteroepitaxy of GaAs on Si

Dong-Ning Wang, Tom Hierl, and James Hwang, Lehigh University
Xiao-Ming Fang, Joel M. Fastenau, and W.K.Liu, IQE Inc.

- Integration of GaAs-based light emitters on Si for optical interconnects
- Nano-thin SrTiO₃ buffer layer for strain relief, planar structure, and low cost manufacturing



- High quality GaAs buffer grown on SrTiO₃/Si
- Critical cleaning of pseudo substrate before regrowth
- Cleaning and regrowth conditions being optimized for regrowth of laser structure