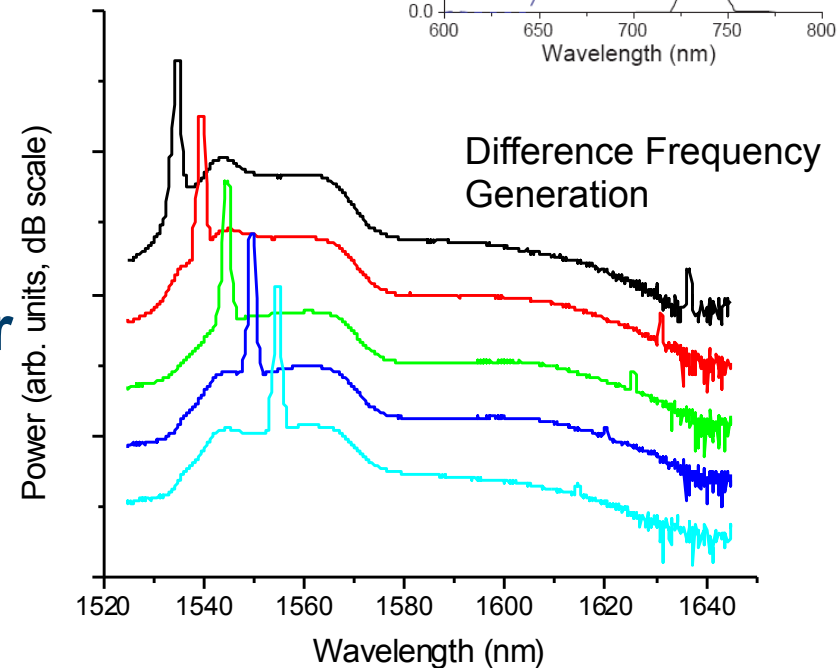
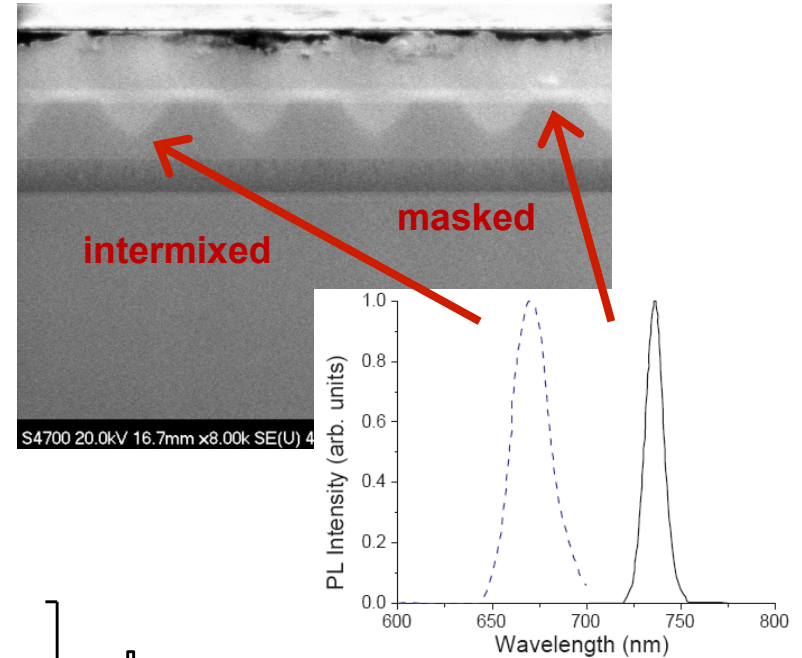


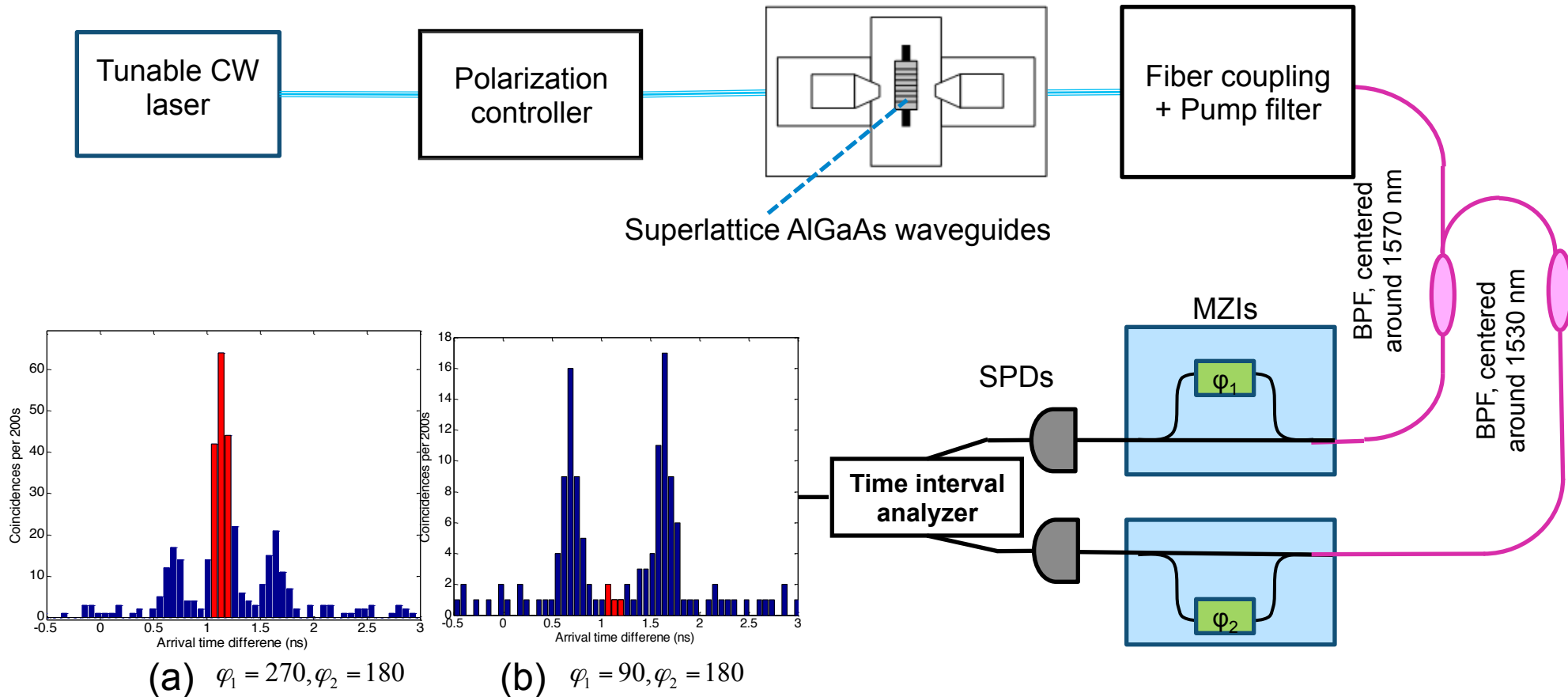
Prof. David C. Hutchings et al

- Developed post-growth fabrication techniques for III-V semiconductor Quasi-Phase-Matched waveguides
- Demonstrated frequency conversion in superlattice semiconductor waveguides
- Demonstrated lasing at pump wavelengths
- Individual elements in place for self-pumped optical frequency conversion and generation

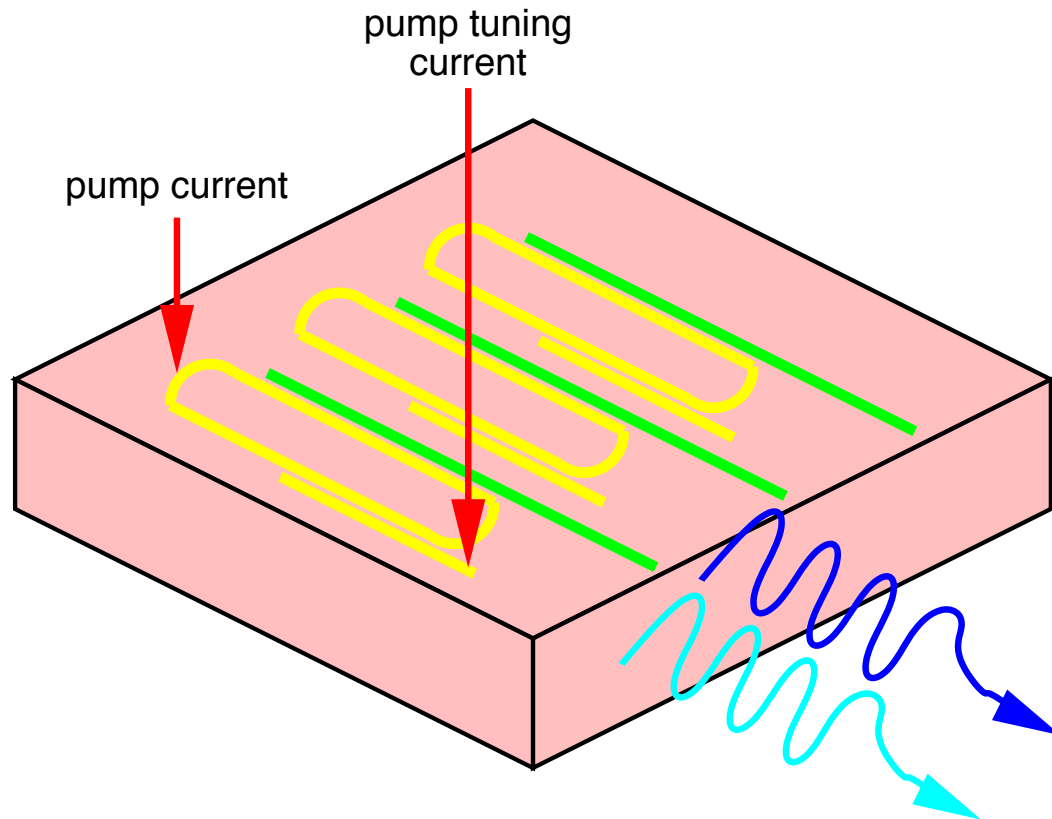


Quantum Technologies Research collaboration, spun out of EPSRC/NSERC supported project.

Universities of Glasgow and Toronto



8×10^6 photon pairs/s achieved in filter bandwidths with 10 mW CW pump power



Entangled optical outputs
~1550nm

- wavelength: $1/\lambda_s + 1/\lambda_i = 1/\lambda_p$
- polarisation (for type-II PM)
- time of detection
- phase

- no optical input required
- multiple devices on a single chip
- fine pump tuning with current-controlled DFB injection