Robert Wolkow
Atom Scale Electronics

Website: https://sites.google.com/a/ualberta.ca/bobwolkow/
Email: rwolkow@ualberta.ca
Phone: 780 641 1725

RESEARCH KEYWORDS: Condensed Matter Physics

R&D CAPABILITIES

Diverse atom scale imaging techniques, atom scale fabrication on silicon, conventional lithographic fabrication, ab initio structural and electronic transport computation

TECHNIQUES & INSTRUMENTATION SERVICES

Scanning tunneling microscopy and spectroscopy, atomic force microscopy, high resolution electron energy loss spectroscopy, field ion microscopy

LICENSED OPPORTUNITY

1) Patent title: Electrostatically regulated atomic scale electro-conductivity device

Potential application(s): ultra small, ultra low power electronics

INDUSTRY COLLABORATIONS

1) Working with Lockheed Martin to build connections between the normal lithographic scale and new atom scale circuitry.
2) Designing and fabricating new atom scale ultra-low power electronic circuitry with Quantum Silicon Inc.
3) Developed new charged particle microscopy products with Hitachi Canada and Hitachi Japan.