

Robert Wolkow

Atom Scale Electronics

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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

LICENSING OPPORTUNITY

- 1) Patent title: Electrostatically regulated atomic scale electro-conductivity device
- 2) Patent info: . U.S. Patent 8,076,668, issued Dec. 13, 2011

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.