

## ENABLING NANOTECHNOLOGY

**Speaker:** Mr. Brian Lim  
**Chief Executive Officer, Atomate Corporation**

**Venue:** Blk S13, Level M, Room 11, Physics Conference Room,  
**Physics Department, Faculty of Science, NUS**

**Date:** **22nd June 2007 (Friday)**

**Time:** **3.00pm – 4.00pm**



### **Abstract:**

Atomate ([www.atomate.com](http://www.atomate.com)) is a world leader in nanotube and nanowire synthesis via Chemical Vapor Deposition (CVD) methods. Our expertise in advanced processing techniques is the foundation of our work. Atomate has 2 business units, one for equipment and another for electronics and devices. Both business units have very active R&D programs.

### **Nanotube & Nanowire Equipment**

Atomate's expertise includes CVD, LPCVD, PECVD and MOCVD. Carbon nanotubes (SWNT, MWNT) and nanowires (ZnO, SbO, SnO, Si, SiGe, GaN, etc.) have all been fabricated precisely in our systems.

Nanotube and nanowire research evolves rapidly, and adaptability of synthesis equipment is critical for a diverse body of research. Atomate systems are designed in modules, permitting a number of configurations and processes. The Atomate Workbench™, our proprietary computer interface, is a powerful application that delivers precise process control. These features make our hardware ideal for both research and production settings, and in many cases, our academic customers have re-engaged us from new positions in industry.

Atomate supplies catalysts (Fe, Cr, Ni, Co, Au, etc.) and substrates (Si, SiO<sub>2</sub>/Si, patterned, etc.), and sells components and modules for improving control of existing CVD systems. User safety is a primary concern to us, and we can perform technical installations that include gas cabinets, gas abatement, and gas sensor arrays.

### **Nanotube & Nanowire Electronics**

Atomate's R&D efforts in electronics have resulted in many patentable designs and devices that aim at both integrative and disruptive technologies. Our scientists focus on technologies with a path to commercialization, and we are currently engaged in several endeavors with near-term timelines.

In addition to internally developed technologies, we welcome discussions on technologies developed in academia or elsewhere with commercial potential. Atomate's synthesis capabilities make us an ideal partner to take concepts to production.

### **Profile:**

**Brian Lim** is the Chairman, CEO, and Founder of Atomate Corporation ([www.atomate.com](http://www.atomate.com)), a privately held nanotech company with 2 business units: Nanotech Process Equipment Business Unit and Nanotech Electronic Devices Business Unit.

Atomate develops complete systems, innovative components, and critical materials optimized for the synthesis of nanotubes and nanowires. Atomate nanostructure tools are helping scientists achieve faster and better results at the top academic and government labs in 6 continents. Atomate also performs advanced R&D in developing the next generation of electronic devices based on carbon nanotubes and nanowires of various materials.

Brian leads the Atomate team as its president while also performing the duties of marketing, sales, and business development. Brian founded Atomate with several colleagues and grew the business over the past 4 years. Prior to Atomate, Brian was the VP of Business Development, Marketing, Sales, and Product Management at NanoDevices (acquired by Veeco Instruments). Brian has also served as the VP of Engineering and Product Development at Alpha Virtual (acquired by Veridicom); VP of Marketing and Business Development at Broadware (acquired by Cisco); Director of Product Marketing at StarDivision (acquired by Sun Microsystems); and Product Manager at Sun Microsystems. Brian also worked at NASA-JPL for 8 years managing the development of mission-critical devices for Earth orbiting science instruments and spacecraft mission to Mars and Saturn. Brian earned a MS in Management and Engineering from the MIT Sloan School of Management and School of Engineering and a BSME, also from MIT.

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