Victoria E. Lee

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Education

MASSACHUSETTS INSTITUTE OF TECHNOLOGY (M.I.T.) **Cambridge, MA**
Candidate for B.S. in Chemical-Biological Engineering Expected Graduation Date: 2010

- Coursework completed: Mechanics, Electricity and Magnetism, Calculus, Differential Equations, Principles of Chemical Science, Mechanics and Materials

WEST MORRIS MENDHAM HIGH SCHOOL **Mendham, NJ**

- Class valedictorian
- Perfect 2400 score on the SAT

ACADEMIC AWARDS

- **2006 Presidential Scholar** – Awarded to the top 141 students in the U.S. for excellence in academics and extracurricular activities
- Robert C. Byrd Honors Scholar
- USAA National Mathematics Award
- Rensselaer Medalist for Excellence in Mathematics and Science

Experience

UROP RESEARCH POSITION WITH LANGER LAB **Fall 2007**

- Working on a project in the Langer Lab entitled "Liposomes/Polymeric Particles for Prolonged Duration Local Anesthesia" through MIT's Undergraduate Research Opportunities Program.

SUMMER INTERN WITH KBC ADVANCED TECHNOLOGIES **Summer 2007**

- Interned for two months in the Singapore office of KBC Advanced Technologies, an independent consulting group which offers improvements in processing performance to companies in the oil refining and petrochemical industries. Developed new correlations between crude oil quality and energy efficiency for the Best Technology Manual by creating a computer simulation of a refinery crude distillation unit in Petro-SIM and evaluating optimal energy consumption based on that simulation.

INDEPENDENT CHEMISTRY RESEARCH PROJECT **Fall 2004-Spring 2006**

- Conducted research with mentor, Dr. Edward Stiefel of Princeton University, on the reactions between proteins and metals, focusing mainly on the solubility properties of the resultant precipitates. Recent theories suggest that these precipitates might model the precipitates found in the brains of patients with Alzheimer's Disease, so a better understanding of how to prevent precipitation or how to resolubilize the precipitates could possibly lead to a treatment for this disease.
- Applied for and was awarded $1600 in research grants from the Young Science Achiever's Program and the New Jersey Academy of Science.
- Presented research at the North Jersey Regional Science Fair. Won First Place in Chemistry, the American Chemical Society Third Place Award, and advanced to be an International Science and Engineering Fair Symposium finalist.
- Research paper entitled, Reversible Precipitation of Bovine Serum Albumin by Metal Ions and Synthesis, Structure and Reactivity of New Tetrathiometallate Chelating Agents, Journal of Inorganic Biochemistry, accepted for publication, July 12, 2007.

Special Projects

INTRODUCTION TO EXPERIMENTAL CHEMISTRY **M.I.T., January 2007**

- Intensive seminar on laboratory techniques in which we performed experiments relating to chemical equilibrium, reaction rates, and coordination complexes.

Activities

- Varsity Sailing Team
- Associate Advisor
- Sigma Kappa Sorority