

JOSHUA A. DAVIES

1600 NE 47th Street, Apt #37
Seattle, Washington, 98105
Ph: 206-856-7444
Email: jadavies@u.washington.edu

Educational Background:

September 2004 – Present	University of Washington Current Ph.D. graduate student Department of Chemistry Supervisor: Dr. Larry Dalton
May 2003	Simon Fraser University Graduated with a Bachelor of Science degree in Chemistry and a minor in Molecular Biology and Biochemistry Major GPA: 3.50
June 1998	Centennial Sr. High School Graduated with honors GPA: 3.91

Research and Co-operative Education Experience:

Nov. 2002 – May 2003	<p><u>Supervisor:</u> Dr. Andrew J. Bennet Simon Fraser University 604-291-3532</p> <p><u>Undertaking:</u></p> <ul style="list-style-type: none">- Researched synthesis of bicyclo[4.1.0]heptane carbohydrate-based analogues as potential glycosidase inhibitors- Fabricated and implemented large scale synthetic route (5 steps) to an advanced glucose derived intermediate, Methyl 2,3-di-O-benzoyl-6-deoxy-6-iodo-α-D-glucopyranoside.- Performed a half hour presentation entitled "Using Reductive Cleavage as a Route to the Synthesis of Pseudo-Disaccharides as Potential Glycosidase Inhibitors".- Results will be used for further experiments in fall of 2003.
May 2001 – Sept. 2001	<p><u>Employer:</u> Cantest Ltd 4606 Canada Way, Burnaby British Columbia Supervisor: Rob Hunter Telephone: 604-734-7276</p> <p><u>Duties:</u></p> <p>Quality Control Officer:</p> <ul style="list-style-type: none">- Reviewed, edited, and wrote analytical methods- Calibrated various analytical instruments- Constructed quality control plot for QC samples- Updated quality control database- Assisted with internal laboratory audits- Worked on the revised Quality Manual- Contributed to the success of the company's annual accreditation

May 2000 –
Jan. 2001

Employer: **Philip Analytical Service Corporation**
8577 Commerce Crt. Burnaby, British Columbia
Supervisor: Rob Gilbert
Telephone: 604-444-4808

Duties: Analyst:
- Read pH in leached soils
- Determined moisture percentages
- Entered data
- Analyzed trace metals using ICP-AES
- Researched, and wrote term report on the background and procedures of ICP-AES analysis

Skills/Lab Techniques:

- Multi-step organic synthesis, including solvent distillation, re-crystallization, extraction, sublimation, flash evaporation, and flash chromatography
- Northern blot, Southern blot, PCR, DNA sequencing and analysis, plasmid miniprep, restriction digestion, sub-cloning, DNA and RNA preparation, and gel electrophoresis
- Protein determination, immunoprecipitation, SDS-PAGE, immunocytochemistry, immunoblotting, lipid isolation, protein purification, and affinity chromatography
- Use and analysis of NMR (1 and 2-D), IR, MS, GC, HPLC, Raman, and UV/Vis Molecular Spectroscopy
- Use of Analytical Balance, Cyclic Voltammetry, Differential Scanning Calorimetry Thermal Gravimetric Analysis, Atomic Spectroscopy (ICP-AES and Graphite furnace), Potentiometry, Acid/Base Potentiometric Titration, and Complexation Titration with EDTA
- Use of Langmuir-Blodgett Trough, STM, Stop-flow apparatus, and conductivity electrode.
- Computer programming in C, MS-Excel, Word, UNIX, LIMS, ChemOffice, PowerPoint, and Maple
- Statistics and Spreadsheets, Gaussian Distribution, Standard Deviation, Confidence Intervals, and t-Tests.
- Circuit Analysis, use of a Digital Multimeter, use of Oscilloscope, and Oxy-Acetylene Welding

Awards and Honors:

Jan. 2000 Golden Key Honors Society (Top 15% of chemistry undergraduates at SFU).
June 1998 Provincial Exam Scholarship, Roy Krutrow Scholarship, and Grade 9-12 Passport to Education Scholarship.

Volunteer Work:

Aug. 2001 Volunteered 160 hours as a Mentor for the SFU Mentorship Program. Helped to introduce and advocate sciences to future university students.

Extracurricular Activities:

Competitive volleyball for various men's club, and intramural teams; mountain biking, snowboarding, hiking, and athletics.

Additional References:

Available upon request