

NATHAN FENWICK

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STRATEGY, COMMUNICATION, RESEARCH AND LEADERSHIP BRING A SUCCESSFUL PROJECT TOGETHER

I am a multi skilled, dedicated, results-oriented professional with an excellent history of managing complex projects spanning diverse industries. I have experienced success in Project Management, Graphic Design, Chemical Consultation, R&D, Pulp & Paper, Green Energy, Zero Waste Mining, Department of Fisheries, Sales, Investment and Business Communications.

My most recent interests I would pursue with the appropriate time include:

1. CMOS Lab-On-a-Chip technology paired with more macro molecule detection implementing similar technology as the "single molecule detection" sensitivity found in Paired Surface Plasma Wave Biosensors. Developing this as a product for macro level for direct blood work in medical devices would have incredible advantages in the field and application.
2. A possible paint on enamel product for tooth repair.

I understand that modern markets require a constant evolution of skills and communication to confidently provide contemporary business strategies, novel products, and promotional campaigns to give clients the leading advantage in their target market. I welcome any opportunity to continue my education and gain experience!

I have worked with established and start up enterprises in the areas of operations development, product development, and research, finances, sales, managed print and internet communications. I am currently the owner and principal of a boutique consulting & graphic house since 2000, and worked with companies like Environmental-Expert.com (Enviro-Solutions), TeckCominco, Skeena Cellulose, JR Salmonid Commission, Microsoft, PriceWaterHouse Coopers, Bell, General Motors, Cypress Consulting and managed all aspects of Bootlegger's online presence for several years.

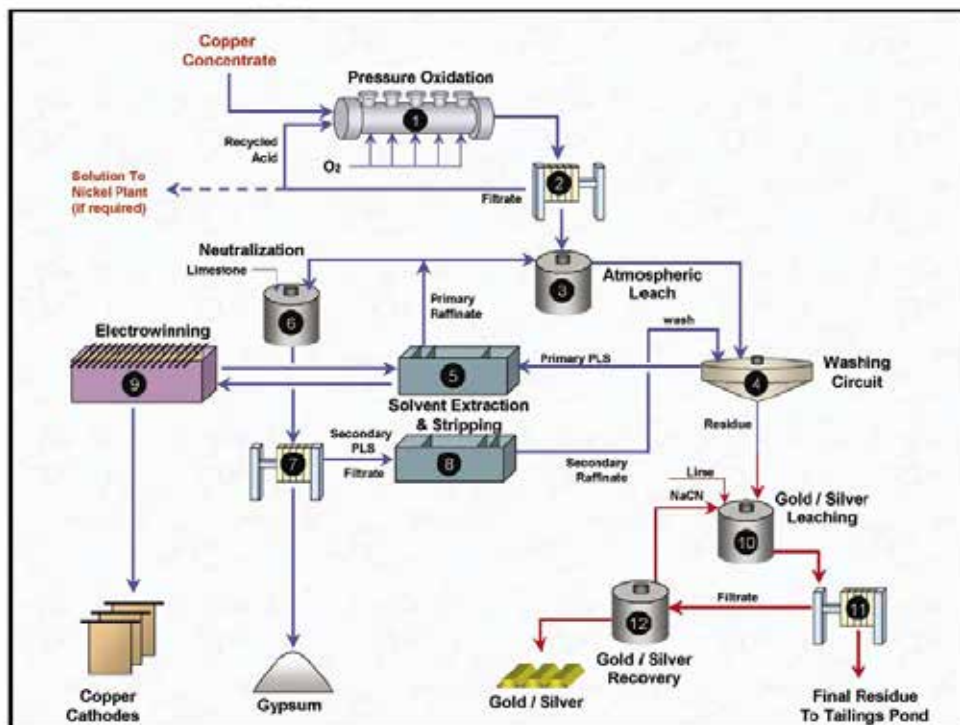
I took leadership in Laboratory Management by co-creating an analytical laboratory from the ground up, and put together the HPLC analytical methodologies for most of the products.

I excelled as a trouble shooter and technician with the patented TekCominco's CESL Electrochemical Extraction and lab manager for Skeena Cellulose.

LABORATORY & TECHNICAL SKILL HIGHLIGHTS

- HPLC, gas and liquid chromatography.
- NMR, UV/Vis, Infrared spectroscopy.
- Experienced in combining activated organic and inorganic molecular groups.
- Conductometric, precipitation and volumetric titration.
- PPM/PPB metal detection using polarography, anodic concentration and stripping.
- Spiking methods and internal standards.
- Computer literate, innovative, organized and experienced working on professional projects.
- Collected numerical data and biological samples
- Familiar with the phyto-chemical and physiological aspects of natural products.
- Proficient with spectroscopic and analytical laboratory equipment.
- Experienced in combining activated organic and inorganic molecular groups.
- Innovative, organized and experienced working on professional projects.
- Managed and performed sample preparation, literature searches, reports, sub-contracting, market research, graphic design, web design and sales.
- Formulated a non-toxic, stable, base cream for an industrial solvent.
- Solved experimental scale problems for the "zero" effluent process
- Equipment modifications, and flow networking with other circuits.
- Compiled the data for the various monthly reports.
- Air particulate sampling of stack emissions.
- Managed the logistics and communications necessary for hosting an agricultural conference.
- Market research for product feasibility

CESL Copper / Precious Metals Process

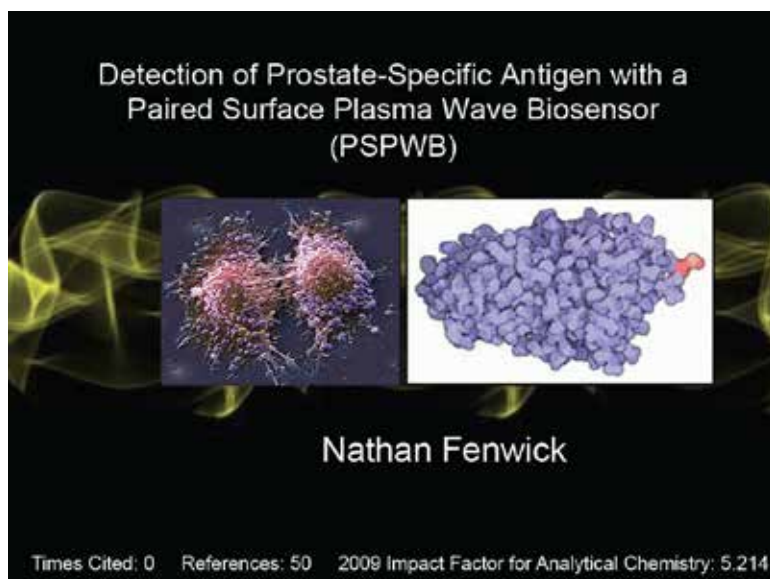


RESEARCH/REVIEW PAPERS

DETECTION OF PROSTATE-SPECIFIC ANTIGEN WITH A PAIRED SURFACE PLASMA WAVE BIOSENSOR (PSPWB)

(Full UBC Presentation available at the weblink below)

www.azimuthdesigns.com/science/PairedSurfacePlasmaWaveBiosensor.pdf



This paper investigates a methodology to reduce S/N ratio due to the random shot noise.

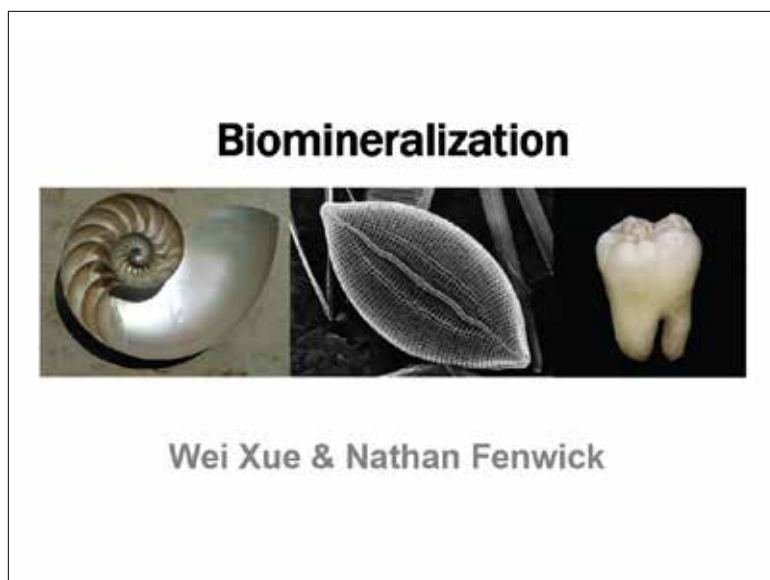
The historical challenge for conventional Surface Plasmon Resonance biosensors is the inherent limitation in the equipment.

By polarizing the incident lasers and comparing them internally, all the issues with machinery, sump station power fluctuations, local power consumption and dirty power are removed.

BIOMINERALIZATION

(Full UBC Presentation available at the weblink below)

www.azimuthdesigns.com/science/Biom mineralization.pdf



This paper investigates the recent discovery of the amelogenin that creates the microtubules for the framework of tooth enamel!

Enamel formation is a complex biological process which produces crystal structures that are non-cellular inorganic material.

Biom mineralization process can be described in a few distinct phases.

- (1) Secretion of Amelogenins
- (2) Assembly of Nanoparticles
- (3) Formation of HAP Crystals
- (4) Resorption of Amelo-fragments
- (5) Maturation of Crystals

ANALYTICS / PRODUCT DEV

HEDRON ANALYTICAL INC Vancouver, BC, 1999 - 2000 **Principal, Project Management & Lab Technician**

Hedron was created to capitalize on new government requirements for Natural Product standardization and to help raise the over-all quality of the Health Product Industry, which at the time was suffering under a lack of genuine quantitative chemical marker analysis. We also provided water quality and contaminant analysis for organics, pesticides and metals.

As a Principal and Project Manager within this company, Nathan was responsible for Method Research & Development, obtaining Laboratory Certification for constant expansion of services, Marketing Strategy, Sales and Sample Preparation.

Duties

- Project Management
- Supervised up-to/over 10 Staff and Sub-Contractors at a time
- Method Research & Development & Sample Preparation
- Consulted "BC Certified Organic" for pesticide levels in certified organic products
- Negotiated funding for \$30,000 for a Saturn 2000 GC/MS & HPLC 1090
- Government & Client Reports
- Government Licensing, Certification Applications & Procurement
- Marketing Strategy & Sales
- Corporate Identity, Pamphlets, Forms
- Accounting and Finance

Skills

- Proficient with most spectroscopic and analytical laboratory equipment
- Solid foundation in various analytical methods to obtain reproducibility and precision
- Experienced in combining activated organic and inorganic molecular groups
- Able to quickly grasp technical, abstract or routine procedures
- Well versed in statistical data analysis and problem solving

Analytical Services

- Element Packages for the Mining industry
- Phytochemical & Herbal Markers
- Nutritional Supplements Standardization & Quality Control Tests
- Pesticides, Fungicides and Carbamates
- Microbial Profiles
- Environmental Volatile Contaminant Testing
- Individual Elements testing Plasma
- Research Trials



PRIVATE CONTRACT Vancouver, BC, 1997 - 1998
Project Management, Chemical Consultant, Product Development

Duties

- Formulated a new non-toxic, stable, base cream for a proprietary industrial solvent
- Successfully developed the product at 1/3 the budget projection
- Optimized the efficiency and yield of the chemical reactions on site, through implementing inexpensive techniques and equipment modifications that almost doubled profit margins

TECK COMINCO ENGINEERING AND CESL Vancouver, BC, 1997
Project Manager, Floor Operator, Health & Safety

The patented CESL Process is a novel approach to mineral and elemental extraction that does not require smelting or tailing ponds. This environmental technology produces virtually no liquid effluents except for a small amount of steam and all solid waste are inert. I was ultimately offered the position of Head Chemist at the Demo Plant but declined due to concerns in the workplace safety.

Duties

- Personally responsible for smooth operation of 5 continuous metal/liquid extraction circuits, when normally it was required to have multiple technicians staffing each circuit
- Solved experimental issues with the CESL “zero” effluent process
- Equipment modifications to improve yields and liquid system networking of various circuits
- Compiled data for the various reports
- Discovered and Reported Health & Safety Hazards

SKEENA CELLULOSE Port Edward, BC, 1994 - 1996
Lab Supervisor & Heavy Duty Machine Maintenance

Under Nathan’s leadership, the lab department for the largest and oldest pulp & paper mill in BC, was able to successfully complete all duties for the first time since the 1960s.

Duties

- Water Sampling, Analysis and Fish Toxicity Tests
- Supervised the chip quality control lab
- Air particulate sampling of stack emissions
- Organized and prepared daily, weekly and monthly reports
- Assisting with maintenance and repair of all digester machinery in the chemical and mechanical processes of A & B mill
- Repair mechanical shafts and problem solve various challenges that come up during a pulp and paper process, including balance equipment, solve clogs, identify safety hazards.



INDUSTRY

KEALY'S DISTILLERY Vancouver, BC, 2018

Warehouse Build and Layout of Industrial Scale Equipment

Duties

- Assisted in unloading and setting up the Kealy's Distillery for creating over 50 different flavoured alcoholic beverages. Unloading Shipping Containers filled with delicate distillation apparatus
- Setting up and balancing distillation vessels
- Organizing equipment for future access and product development.



VERTICAL WINDMILL ANALYSIS

Vancouver, BC, April 2011

Research Assistant

Duties

- Compile all current vertical axis data on wind turbines for electrical output vs conventional horizontal axis turbines.
- End product was installed at BCIT



INDUSTRY

ENVIRONMENTAL-EXPERT.COM Vancouver, BC, 2009
Project Management, Chemical Consultant, Product Development

Duties

- Financed the engineering and materials purchasing for the world's only KYOTO certified mega-watt particulate scrubber.
- Successfully developed the product
- <https://www.environmental-expert.com>

LONG TERM PHARMACY CARE Vancouver, BC

Duties

- Package and delivery prescriptions on schedule for several long term care facilities.
- Identify and fill prescriptions for individuals and package them into blister packs for delivery
- Meet and deliver all required duties for this position

QUALITY ASSURANCE CONSULTING Vancouver, BC, 2004
Research & Marketing

Duties

- Compile a nutritional and farming strategy report on food crops that produce Essential Fatty Acid profiles that are beneficial for humans.
- Market Research involving industrial crops, nutritional oils, edible products,
- Research and deliver woven and non-woven fiber products and fuel.

PRIVATE VSAT IP SATELLITE NETWORKS FOR TOFINO/UCLUELET, BC, 2002
Marketing and Presentation at Municipal Level for Broadband Initiative

Duties

- Municipal presentation of a privately owned telco for remote regions that would be 50% financed by the Broadband Initiative grant initiative from the Canadian government.
- Financial/Installation/Technical strategy presentation to Tofino/Ucluelet at the municipal level.
- Grant financing raised for \$500K
- Medical & Education presented as the main backbone to justify community component
- Military Installation/maintenance/training for the assets secured

MANAGEMENT

AZIMUTH DESIGNS Vancouver, BC, 2000 - 2022 Principal & Project Manager

Azimuth Designs was established in 2000 with Nathan as the Principal and driving force in the company.

Nathan has worked with some of the largest established enterprises in the world including companies like Microsoft, PriceWaterHouse Coopers, Bell, General Motors, Bootlegger and Cypress Consulting.

He is an innovative professional with a proven ability to identify, analyze and solve problems to meet even the most demanding customer expectations and control budget costs.

Combine these skills with structural logic, market analysis and an eye for design and you have a very convincing marketing campaign, product or process.

Duties

- Project Management of \$100k+/year per client
- Provide strategic guidance during project implementation stages
- Manage client expectations by ensuring the delivery of the highest quality service
- Hire, monitor and evaluate team performance
- Manage multiple projects simultaneously and under tight deadlines
- Negotiate and manage scope creep in Contracts
- Onsite Strategic Business Analysis
- Business Communications
- Client Acquisition & Long Term Retention
- Art Direction
- Information Architecture
- Web Programming
- Accounting and Finance



EDUCATION



University of British Columbia
M.SC. CHEMISTRY STUDIES

2009-2011



University of Victoria
B.SC. ANALYTICAL AND ORGANIC CHEMISTRY

1992-1996

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