

Jean Sautter

Materials Engineering

Specialized in Materials manufacturing, design and performance

Email: jean95sautter@gmail.com

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Technical Skills:

Material testing and processing:

Non-Destructive testing

(Dye Penetrants, magnetic particle method, penetrating radiation, ultrasonic inspection methods)

Microstructural analysis

(Etching (Nital, NaOH, Oxalic acid, Murakami etching), Percentage ferrite counts, Charpy impact test, tensile testing, corrosion resistance testing)

Tools and appliances:

M10 Optical spectrometer, Meiji Techno IM7100 Microscope, X-ray powder diffraction (XRD), Scanning electron microscopy (SEM), Laboratory furnace, King Brinell hardness tester, Instron tensile testing appliance.

Computer software proficiencies:

Solidworks CAD, AutoCAD, Microsoft office (Word, Excel, powerpoint), Solidcast 8

Work Experience

Highland Foundry Ltd.

August, 2017 – December, 2017

Metallurgy Research and development Co-op student

- Designed and implemented a unique experiment for estimating the efficiency of the foundries main quench tank by relating hardenability to quench efficiency.
- Contributed to the development of a new super duplex stainless steel by performing lab experiments to understand how to improve its castability and corrosion resistance.
- Modeled test bar and charpy bar casting blocks using SolidWorks and analyzed their respective solidification simulations created in SolidCast8.

The University of British Columbia

May, 2016 – September, 2016

Research assistant in hydrometallurgy department.

- Assembled a variety of different electrodes used to collect electrochemical data on the reduction of chalcopryite in sulfuric acid solution
- Collected and analyzed data in order to understand how sulfuric acid concentrations and the addition of cupric ions affect the reduction of chalcopryite
- Meticulously worked along side a PhD student who taught me to use electrochemical analysis instruments and X-ray powder diffraction (XRD) analysis

Technical Projects

Investigation on material properties of various materials:

September, 2015 – December, 2015

- Explored different non-destructive testing methods by analyzing defects in treated and non treated steel using dye penetrants, the magnetic particle method, ultrasonic inspection and penetrating radiation
- Investigated the effects of temperature on brittle and ductile fracture using the Charpy impact test and by shooting a rifle at liquid nitrogen cooled steel plate samples at various temperatures
- Collected data from tensile testing of different metal test samples such as copper, steel and brass, and presented this data in stress strain graphs to effectively analyze the how material properties vary between different metals

Wastenauts Engineering Team Project:

January 2017- April 2018

- Designed and built a plastic shredder and extrusion machine for the purpose of collecting a recycling the plastic waste on UBC campus and creating new products made from entirely recycled plastics
- Effectively collaborating with a team of 10 Engineering students on creative and ingenious ways of reducing plastic waste at UBC and sharing information about how individuals can help to be more sustainable

- Analyzed different ways in which plastic types can be quickly distinguished using Infrared gun and a density flotation method.

Education

University of British Columbia

September, 2014 – May, 2019

BASc Material Engineering (Materials manufacturing and performance)

Professional affiliations

- APEGBC Member Advantage Program for Students (MAPs)
- Material Engineering Undergraduate Club

Activities and interests

- I fluently speak English and French and have an intermediate level in Mandarin Chinese and Spanish.
- Sailing: enjoy sailing on Laser and FJs. Sailing allows me to get away from everything and clear my mind while doing something I love!
- Rock climbing / Bouldering

Reference letters on next page...



January 15th 2018

To whom it may concern,

Jean Sautter was employed as a Co-op student at Highland Foundry Ltd. From August 2017 until December 2017. During that time Jean assisted the Metallurgical department with their daily tasks. These included Micro Specimen polishing and etching. Heat treatment of destructive testing samples. Testing of Tensile and Charpy Specimens and inputting the data into Material Test Reports.

Jean worked with Highland's Engineering Department creating 3D models and drawings of the destructive test specimens.

Other projects included working with their metallurgical consultant developing a heat treat fixture to determine the quench efficiency of Highland's Heat Treatment procedure.

Wade Marquardt

Senior Methods Engineer

A handwritten signature in black ink, appearing to read 'Wade Marquardt', is positioned to the right of the typed name and title.

THE UNIVERSITY OF BRITISH COLUMBIA



Dr. Edouard Asselin
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Monday, May 15th, 2017

Highland Foundry

RE: Letter of Reference for Jean Sautter

I am pleased to write this recommendation for Jean Sautter. Mr. Sautter worked for me as an undergraduate research assistant from May to September of 2016.

Jean worked directly with one of my senior PhD students. By all accounts, Jean was an excellent employee. His duties involved setting up electrochemical experiments and using electrochemical analysis software to run various parameter tests and to aid with data collection. During his time as an assistant, he established good relationships with myself and his colleagues and developed strong teamwork and interpersonal skills that have been unanimously praised. He learned the required lab and research skills quickly, revealing good agility and a strong work ethic. Self-driven, he required few follow-ups thanks to his diligence and he worked with little to no supervision in the lab. Jean was a reliable member of the lab during his work term.

I therefore wholeheartedly offer my recommendation for Mr. Jean Sautter. If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to be 'Edouard', is located below the word 'Sincerely,'.

Edouard Asselin, Ph.D., P.Eng.
Professor
Canada Research Chair in Aqueous Processing of Metals