

Diego Mesa | Curriculum Vitæ

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PhD(c) in Mineral Processing - Imperial College London

MSc in Extractive Metallurgy & Mining Engineer

Academic Background

PhD in Mineral Processing

London, UK

Research on the design and scale-up of flotation tanks. Funded by Becas Chile

Imperial College London

2016–present

Graduate Research Trainee

Montreal, Canada

Research program on column flotation, collaborating with Dr Cesar Gomez

McGill University

2015

MSc in Extractive Metallurgy

Santiago, Chile

Graduated with First-class honours. Thesis titled "Study on the effect of frother type and concentration over froths generated with clay-rich minerals". Funded by CONICYT

Universidad de Chile

2013–2015

Undergraduate Exchange Program

Montreal, Canada

Funded by BHP Billiton

McGill University

2012

Mining Engineering

Santiago, Chile

Graduated with First-class honours. Fully funded by Universidad de Chile Scholarship

Universidad de Chile

2008–2013

Work Experience

Business Developer - Part-Time

Consulting and Metallurgical Laboratory services

In charge of generating business opportunities in Europe and Africa for Aminpro

Aminpro

2019–2020

Graduate Teacher Assistant

Education

- Minerals Processing
- Earth Resources
- Mining Waste and Water Management

- Mathematics for Geoscientists
- Chemistry for Geoscientists

Imperial College London

2016–2020

Proposal Engineer

Consulting and Metallurgical Laboratory services

In charge of generating technical and economic proposals and developing technical reports for clients

Aminpro

2015–2016

Metallurgical Engineer

Consulting services related with flotation

Consultant projects for Collahuasi, Antofagasta Minerals, Salimax Ltda, and Arcadis, among others

FrothTech

2013–2015

Metallurgical Engineer

Consulting services related with pyrometallurgy

Consultant projects for CODELCO

Seiko Mining

2013–2015

Mineral Processing Teacher

International Aid - Education

Imparted classes of Mineral Processing as part of an International Aid Project in Honduras, organised by the International Cooperation Agency of Chile (AGCI)

AGCI - Universidad de Chile

Dec 2013

Engineering Co-Op Internship

Diamonds and Speciality Products, Saskatoon, SK, Canada

Internship within the Technology Development Department of the Jansen Project on Potash

BHP Billiton

Jan-Mar 2013

Undergraduate Teacher Assistant

Education

Universidad de Chile

2012-2015

- Mineral Processing Engineering
- Flotation Diploma 2012
- Analysis and Simulation of Mineral Processes
- Geology, Mining and Metallurgy Diploma

Fieldwork Research Experience

PEPT campaign

Positron Emission Particle Tracking Campaign at iThemba Labs, Cape Town

iThemba Labs - South Africa

Nov 2019

Metallurgical sampling

Sampling of gravitational concentration plant of lead, in Olovo Mine, Mineco

IMP@CT - Bosnia Herzegovina

Jun 2019

Air Recovery campaign

Campaign obtaining samples and measuring the air recovery of the TC300 flotation cell, in a collaborative project between Atalaya Mining, Outotec and Imperial College

Riotinto Mine - Spain

2018

Air Recovery campaign

Air recovery measurement of the TC500 flotation cell in a collaborative project between Boliden, Outotec and Imperial College

Kevitsa Mine - Finland

Feb 2018

Computer skills

Basic: AutoCAD, image analysis with ImageJ, JKSimFloat

Intermediate: MATLAB, L^AT_EX, Fusion 360, 3D Printing, Inkscape

Languages

Spanish: Native speaker – **English:** Near native

Other experiences

Reviewer for Academic Journals

Reviewed 5 papers for 2 scientific journals

More info in Publons.com

Miner. Eng. - Sep. Purif. Technol.

2018-present

Radiation Safety Training

Imperial College Integrated Radiation Protection Training

Imperial College London - iThemba Labs

2019

Field trip guide in Peru

Academic guide on SEG Field trip to Peru, visiting 8 mining operations, in charge of a group of undergraduate students

Imperial College – SEG

2019

Fieldwork First Aid Trainee

First Aid Certification for Fieldwork and Outdoor activities

Imperial College – Marlin Training

2018

President of the Latin-American Society

President of the Latin-American student's organisation, leading several projects such as the 1st Symposium of Latin-American Researchers in the UK

Imperial College Union

2017-2018

President of the Music Community of the Engineering Faculty

Universidad de Chile

2014

Publications

Articles:

- Mesa, D., Morrison, A. J., & Brito-Parada, P. R. (2020). The effect of impeller-stator design on bubble size: implications for froth stability and flotation performance. *Manuscript submitted to Minerals Engineering*.
- Mesa, D. & Brito-Parada, P. R. (2020). Bubble size in aerated stirred tanks: effects of impeller design and operating conditions. *Forthcoming in Chemical Engineering Research and Design*.
- Mesa, D. & Brito-Parada, P. R. (2019b). Scale-up in froth flotation: A state-of-the-art review. *Separation and Purification Technology*, 210, 950–962. doi:10.1016/j.seppur.2018.08.076.
- Mesa, D., Kracht, W., & Diaz, G. (2016c). Textural image classification of foams based on variographic analysis. *Minerals Engineering*, 98, 52–59. doi:10.1016/j.mineng.2016.07.012.

Oral presentations in Conferences:

- Mesa, D., Cole, K., van Heerden, M. R., & Brito-Parada, P. R. (2020). Hydrodynamic characterisation of flotation impeller designs using Positron Emission Particle Tracking. In *Accepted for XXX International Mineral Processing Congress (Postponed due to COVID-19)*. Cape Town, South Africa.
- Mesa, D. & Brito-Parada, P. R. (2019a). Froth stability and flotation performance: the effect of impeller design modifications. In *Flotation '19*. Cape Town, South Africa: MEI.
- Mesa, D., Morrison, A., & Brito-Parada, P. R. (2018). Effect of impeller design on bubble size and froth stability. In *XXIX International Mineral Processing Congress*. Moscow, Russia.
- Mesa, D., Kracht, W., & Diaz, G. (2016a). Effect of frother type on foam gas holdup and texture. In *Copper 2016*. Kobe, Japan.
- Mesa, D., Kracht, W., & Diaz, G. (2016b). Effect of frother type on foam gas structure. In *XXVIII International Mineral Processing Congress*. Quebec, Canada.
- Mesa, D. & Montes-Atenas, G. (2012). Error analysis of the shrinking core model when applied to leaching kinetics. In *Hydroprocess*. Santiago, Chile.

Other publications:

- Mesa, D., Abou-Ali, A., Mazari, A., Scherer, A., Dziubinska, A., Pardo-García, A., . . . & Hommes, W. (2019, July). *Research Collaborations: A guide for early career researchers by early career researchers*. Edinburgh, Scotland. doi:10.13140/RG.2.2.36095.36004.