

THE WORLD COMES HERE.  
**TMS 2023**  
152<sup>nd</sup> Annual Meeting & Exhibition

MARCH 19–23, 2023  
SAN DIEGO CONVENTION CENTER &  
HILTON SAN DIEGO BAYFRONT  
SAN DIEGO, CALIFORNIA, USA  
#TMSAnnualMeeting



## REGISTER FOR A WORKSHOP OR SHORT COURSE AT TMS2023

Sign up for a professional development event when you register for TMS2023 or add it to an existing registration.

### Introduction to Aluminum Electrolysis

**Date:** Sunday, March 19, 2023

**Time:** 8:00 a.m. to 5:00 p.m.

This one-day course will cover basic topics related to using the ALSem tools for aluminum electrolysis. It is ideal for anyone who wants to understand the theoretical background of the aluminum electrolysis process.

Topics will include:

- **Principles of the Hall-Héroult-Process:** Gain a description of the typical features of the electrolytic cells of an aluminum plant.
- **Mass Balance:** Learn about relations for the theoretical and practical production of aluminum and cell gases and the consumption of alumina and carbon.
- **Properties of the Electrolyte:** This portion of the course gives relations for the essential physical properties of the electrolyte like liquidus temperature, electrical conductivity, density, viscosity, and surface properties.
- **Cell Voltage:** Learn about the different components of the cell voltage inside (ohmic and electrochemical) and outside (busbars) of the electrolysis cell.
- **Energy Balance:** The amount of energy is determined to produce aluminum from aluminum oxide. The energy which is not needed for the electrolytic production of aluminum is lost as heat. Relationships are given to calculate the amount of this heat loss
- **Current Efficiency:** In the course of the smelting process, already-produced aluminum is lost. The reasons are discussed.

#### INSTRUCTOR

Marc Dupuis, GeniSim Inc.

#### REGISTRATION RATES • Course fee includes lunch

Registering As	Advance <sup>a</sup>	Standard <sup>b</sup>
Member	\$595	\$645
Nonmember	\$695	\$745
Student Member	\$295	\$345
Student Nonmember	\$325	\$375

<sup>a</sup>Advance Registration Rate (On or Before January 31)

<sup>b</sup>Standard Registration Rate (After January 31)

Register by January 31 for the best rates!

Scan QR code or visit  
[www.tms.org/TMS2023](http://www.tms.org/TMS2023)

