



SUBMIT AN ABSTRACT FOR THE FOLLOWING SYMPOSIUM

LIGHT METALS

Electrode Technology for Aluminum Production

The Electrode Technology for Aluminum Production Symposium is a key event within the Light Metals program, bringing together industry professionals, researchers, and academics to discuss the challenges and innovations in the aluminum production sector. As the industry expands and production demands increase, advancements in electrode technology are essential for optimizing performance and ensuring sustainability in aluminum production.

The symposium will focus on several key issues currently impacting the industry, including:

- Changes in anode coke supply
- Increased cell size with larger anodes and cathodes
- Cathode wear and its impact on cell performance

These challenges are central to improving cell efficiency, reducing energy consumption, and enhancing environmental sustainability. The symposium provides a platform to explore innovative solutions and advancements in electrode technology to address these concerns.

We invite papers on both fundamental and applied research in the following areas:

- Upstream Production of Anode and Cathode Carbon Materials
- Production and Properties of Anode and Cathode Raw Materials, Anode Cover Materials
- Pitch and Coke Mixing, Anode Forming, and Anode Baking
- Anode Characterization
- Paste Plant Design and Operation
- Baking Furnace Design and Operation
- Mathematical Modeling
- Application of Industry 4.0 and Big Data Analysis
- Effects of Sulfur and Impurities in Anodes
- Rodding Room Design and Operation
- Anode Quality and Performance
- Solutions for Carbon Plant Environmental Issues and Safety
- Cathode Materials and Cathode Production
- Cell Preheating and Startup (as related to Electrode Life)
- Cathode Wear and Wear Mechanisms

- Spent Potlining, 1st and 2nd Cut (Joint Session with Aluminum Reduction)
- Anode Butts: Handling and Properties
- Inert Anode and Cathode Materials: Fabrication and Performance
- We encourage submissions that contribute to advancing these critical areas of research.

Note regarding publication: Authors seeking an oral presentation must submit a manuscript for the Light Metals proceedings or have their work accepted for publication in a TMS journal.

SPONSORED BY:

TMS Light Metals Division; TMS Aluminum Committee

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