



## 2<sup>nd</sup> Call for Papers

# 39<sup>th</sup> Hybrid Conference and Exhibition ICSOBA 2021



22-25 November 2021

Manama, Bahrain & online

Hosted by:



[www.icsoba.org](http://www.icsoba.org)

### INVITATION

*Dear Colleagues,*

The International Committee for Study of Bauxite, Alumina & Aluminium (ICSOBA) has great honor to announce the **39<sup>th</sup> International Conference and Exhibition of ICSOBA from 22 to 25 November 2021.**

At this point of time, the conference is planned as a hybrid event, with the physical part to take place in **Manama, Bahrain** for participants that will be able to travel and with virtual part online for participants that will not be able to travel.

We monitor the situation of Covid-19 in Bahrain and globally and the event organization will be adjusted accordingly. If the pandemic still prevents travelling in September 2021, the conference will be declared fully virtual.

### CONFERENCE OBJECTIVES

ICSOBA 2021 will focus on **sustainable development** and **carbon footprint reduction** in the following domains:

- Bauxite deposits
- Bauxite mining
- Alumina refining
- Carbon electrodes in aluminium electrolysis
- Primary aluminium production
- Aluminium recycling
- Health, environment and safety

**Market scenarios and economic outlook will be reviewed during Keynote sessions.**

### CALL FOR PAPERS

The Organizing Committee is inviting the submission of abstracts, papers and presentations.

Presentations will be delivered live at the venue or online. When submitting abstract, authors should indicate their preference of delivery as well as their selected domain (bauxite, bauxite residue, alumina, aluminium, carbon or recycling).

Submission process is managed by ConfTool <https://www.conftool.net/icsoba2021> which is customized for ICSOBA 2021 Conference.

Abstracts and papers should be written in the [ICSOBA 2021 Author Guidelines and Paper Template](#) as provided at ICSOBA website.

Paper selections and reviews will be made by ICSOBA Technical Committee under the leadership of Program Director and Subject Organizers.

### KEY DATES

30 June 2021	●	Abstract submission deadline
31 August 2021	●	Full paper submission deadline
30 September 2021	●	Presentation submission deadline
22 November 2021	●	Opening of the Conference

Please visit the [ICSOBA website](#) for template download and regular updates.

## ***Bauxite & Alumina topics***

The Bauxite & Alumina subject includes, but is not limited to:

- Safety, Health and Environmental Developments
- Process Safety Management / Operation Integrity Management System Developments
- Bauxite Supply Developments
- Beneficiation and Processing of Low-Grade Ores
- Bayer Process – Grinding, Digestion, Thickening, Evaporation, Red Mud Filtration
- Bayer Process – Precipitation, Classification, Liquor Impurities Control, Hydrate Filtration/Drying and Calcination
- Bayer Process – Bauxite Residue Management and Utilization
- Bayer Process – Process Chemical Additives
- Analysis and Online Measurements
- Alumina Production from Non-Bauxite Ore
- Non-Metallurgical Alumina and Hydrate
- Carbon Zero Footprint
- Process Automation and Artificial Intelligence (AI)
- Mine and Refinery Assets Reliability Management
- Alumina Refinery Design and Equipment Developments

## ***Aluminium topics***

The Aluminium subject includes Primary aluminium production and Aluminium recycling. The topics include, but are not be limited to:

- Cell Technologies - Operation and Performance
- Cell Preheat, Startup and Early Operation
- Cell Modernisation and Amperage Increase
- Current Efficiency and Energy Consumption
- Potline Power Supply and Modulation
- Cell Modelling and Design
- Cell Reactions, Mass and Heat Balance
- Cell Control and Sensors
- Health and Safety in Smelter Operation
- Cell Emissions, Emission Control and Gas Treatment Centres (GTCs)
- Cathode Reactions, Spent Potlining (SPL)
- Bath Chemistry and Control
- Alumina Feeding and Dissolution
- Potline Equipment – Technology Evolution and Maintenance
- Carbon Zero Footprint of Primary Aluminium Production
- Industry 4.0 in Smelters
- Aluminium Recycling
  - Overview of Recycling
  - Current Issues in Recycling
  - Evolution to Zero Footprint
  - Equipment and Sensors.

## ***Carbon topics***

The Carbon subject includes, but is not limited to:

- Raw materials (petroleum coke, coal-tar-pitch, bio carbon)
- Anode forming (process modeling and experimental data)
- Baking process (furnace, process optimization, simulation)
- Sensors and process monitoring
- Anode characterization
- Net carbon consumption
- Economic analysis
- Cathode (cathode design, ramming paste, lifecycle)
- Inert anodes

## CONFERENCE FORMAT

The hybrid format of the conference will enable your participation irrespectively if you travel to Manama or have to stay at home. The difference between on-site and virtual participation is:

- **On-site participants** of the conference will be able to take full benefit of regular ICSOBA conference, including downloading the papers and presentations, participation in technical sessions, exhibition, field trips and social functions. On-site speakers need not record their presentation in advance as it will be broadcast live during the conference itself. On-site participants will also be able to watch the recorded presentations on the virtual platform later.
- **Virtual participants** of the hybrid conference will be able to download the papers and presentations before the opening of the conference. They will be able to attend the presentations live in the scheduled sessions Bahrain time as well as viewing the recorded presentations on the conference virtual platform later. Virtual speakers will have to record their presentation according to ICSOBA guidelines and submit it for broadcasting at the conference at the scheduled time. The virtual speakers will be asked to be available online to answer the questions of the virtual and on-site audience.

All other aspects of the conference will remain the same, i.e., abstract submission, full paper submission and peer-review process.

## LANGUAGE

Papers and presentations will be in English. They will be published and downloadable from ICSOBA website for the participants and ICSOBA corporate members. The papers will be indexed in platforms such as Google Scholar. The printed book of proceedings (TRAVAUX No. 50) will be sent to individual orders after the conference.

## EXHIBITION

Exhibition of latest technologies, equipment and other devices for the aluminium industry will take place during the conference. Companies will be given a time slot for presentation at a corresponding technical session of the conference. The connection with virtual participants will be possible.

## SPONSORSHIP

There are many sponsorship opportunities available. Companies wishing to sponsor or exhibit should contact the Conference Organisers.

## VENUE OF THE CONFERENCE

 **Manama, Kingdom of Bahrain**

The event will take place from 22 to 25 November 2021 in the city of Manama, Bahrain.

More information about the venue and hotels to follow.

Bahrain is one of the most visited countries in the Middle East. The kingdom combines modern Arab culture and historical places which reflect five thousand years of Bahrain civilization.

## TECHNICAL FIELD TRIPS

Two field trips will take place on 25 November to:

### Aluminium of Bahrain:

- The world's largest aluminium smelter outside China produced more than 1.548 Mt of primary aluminium in 2020;
- Recognized for operational excellence, high quality products, outstanding technical services, innovative solutions, and strict compliance to safety and environment regulations.



### Ma'aden Alumina Refinery, Saudi Arabia:

- A 1.8 Mtpa complex of Saudi Arabian Mining Co. and second-largest single-stream high-pressure Bayer plant in the world;
- Digestion temperature at 270 °C for processing boehmitic bauxite.





## ABOUT THE ORGANISER



The International Committee for Study of Bauxite, Alumina and Aluminium (ICSOBA) is an independent non-profit association that unites industry individual and corporate members representing major bauxite, alumina and aluminium producing companies, technology suppliers, researchers and consultants from around the world. The main objective of ICSOBA is to promote the exchange of ideas and results of the work from different fields of research and current practice from bauxite mine to primary aluminium.

Since 1963 ICSOBA annual technology conference is organized in different parts of the world and proceedings are published as TRAVAUX volumes.

The vision of ICSOBA to become the “Technology Conference of the Aluminium Industry, for the Aluminium Industry” has received support of more than 30 major companies who are participating in the yearly ICSOBA Corporate Member Council to voice their view and influence ICSOBA strategy.

As company active in the Aluminium Industry, you are most welcome to join the Council <https://icsoba.org/corporate/>



## ABOUT THE HOST SPONSOR



**Alba** is the world’s largest aluminium smelter outside China and is recognized for technological excellence, innovative solutions, high quality products, outstanding technical services, and strict compliance to safety and environment regulations.

Alba currently produces more than 1.548 million tonnes per annum (2020) of high quality primary aluminium products in the Kingdom of Bahrain. Being in the heart of the resource rich Gulf region gives Alba a tremendous geographical advantage due to proximity to the markets of Europe, Southeast Asia and Africa.

Alba enforces strict environmental guidelines, maintains a high track record for safety, and is widely regarded as one of the top performers on a global scale.

<https://www.albasmelter.com/>

Watch *Welcome to Bahrain 2021* video at:

<https://youtu.be/EGkhoEr7TYM>

## CONTACT US

For more information, please contact us at [info@icsoba.org](mailto:info@icsoba.org)