



1st Circular

42nd International Conference and Exhibition ICSoba 2024



© Krom Galerie

27-31 October 2024
Lyon, France & online

Supported by:



<https://icsoba.org/>

INVITATION

Dear Colleagues,

For its **42nd International Conference and Exhibition**, ICSoba is inviting you to return to the home turf of Paul Héroult and the place of one of the first plants where Karl Josef Bayer implemented his patented process of alumina extraction from bauxite.

The conference will take place in **Lyon (France)** from **27 to 31 October 2024**. This will be the second time ICSoba conference will take place in France and the twentieth time in Europe.

The conference is planned in the same format as last two years with **authors delivering their presentation physically**. These presentations will be broadcast live for the participants who cannot attend in-person.

As usual, field trips will be organized: to **Alteo Gardanne plant** with special focus on bauxite residue storage and processing, and **Aluminium Dunkerque smelter**, home of a Carbon Capture, Utilisation and Storage (CCUS) project.

We are very thankful to **Alteo, Aluminium Dunkerque, Rio Tinto and Trimet** for supporting the conference as host sponsors.

We look forward to seeing you at ICSoba-2024!

KEY DATES / DEADLINES

1 June 2024	●	Full paper submission
15 June 2024	●	Registration starts
1 August 2024	●	Draft program published
15 September 2024	●	Presentation submission
27 October 2024	●	Conference starts

CONFERENCE TOPICS

ICSoba 2024 will cover the following **subjects**:

- Bauxite
- Alumina
- Bauxite Residue
- Aluminium Electrolysis
- Electrodes for Aluminium Electrolysis
- Smelter Casthouse Operation

In these subjects ICSoba 2024 will explore the following **key issues**:

- Sustainability and decarbonisation
- Artificial Intelligence applications
- Energy challenge
- New technologies
- Greenfield and brownfield activities
- Success stories in projects implementation
- Health, environment, and safety
- Market scenarios and economic outlook

Do not miss the opportunity to interact with international experts, scientists, engineers, technology suppliers, equipment manufacturers and representatives of worldwide aluminium industry.

WHAT IS NEW IN THIS CIRCULAR?

- Program highlights
- Keynote speakers update
- Conference registration
- Hotel booking instructions
- Bayer Process short course
- ICSoba 2024 Student Award

PROGRAMME OVERVIEW

With **11 confirmed keynote speakers** and **188 technical paper** abstracts received to date, ICSOBA 2024 is planned as 3-days technical conference arranged in 4 streams plus one full day for technical field trips.

- Sunday 27 October p.m. – registration, welcome reception,
- Monday 28 to Wednesday 30 October – Keynotes and technical sessions,
- Tuesday 29 October – Gala Dinner,
- Thursday 31 October - Field trips.

KEYNOTE SPEAKERS



Alteo Gardanne Refinery -130 years of Adaptation to Meet the Dual Challenge of Environmental Protection and Added Value

Guillaume Bastien,
Alteo, Gardanne, France



Guinea's Golden Decade of Bauxite Export Growth

Alan Clark,
CM Group, Glenelg, South Australia



Low-carbon Aluminium: Market Dynamics and Pathway to Green Transition

Perrine Faye,
Fastmarkets, London, United Kingdom



Rio Tinto, The Organization Facing Aluminium's Technological and Environmental Challenges

Sylvie Fraysse,
Rio Tinto, Voreppe, France

KEYNOTE SPEAKERS



Pioneering Sustainable Aluminium: Aluminium Dunkerque's Decarbonization and Partnership Strategy

Guillaume de Goys,
Aluminium Dunkerque, Loon-Plage, France



Preventing Molten Metal Explosions in Smelters

Alex Lowery,
Wise Chem LLC, New Albany, Ohio, USA



10 Years of TRIMET France, A Success Story

Loïc Maenner,
TRIMET France, Saint-Jean-de-Maurienne, France



Creating a Safety Culture

Tim Murray,
Cardinal Virtues Consulting, Mechanicsville, Virginia, United States



Aluminium Market Outlook: Reaching an Inflection Point?

Uday Patel,
Wood Mackenzie, London, United Kingdom



Can the Aluminium Industry Meet Global Climate Change Targets?

Miles Prosser,
International Aluminium Institute, London, United Kingdom



Journey of Hindalco as an Integrated Aluminium Producer

Kananand Sokkuraj,
Hindalco Manufacturing Centre of Excellence, Mumbai, India

CONFERENCE FORMAT

The hybrid format of the conference will enable your participation irrespectively if you travel to Lyon or must stay at home, including the access to conference materials and live sessions.

The difference between on-site and online 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 before the opening of the conference, participation in technical sessions, exhibition, field trips and social functions. **Only on-site speakers will have the opportunity to present a paper.**
- Online participants of the 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 Lyon time.

All participants, on-site and online, will have possibility to view the recorded presentations "on demand" on the conference platform.

CONFERENCE LANGUAGE

Papers and presentations will be in **English**. They will be published and downloadable from the ICSOBA website for the participants and ICSOBA corporate members. The papers will be indexed in platforms such as Google Scholar.

The printed proceedings book (**TRAVAUX No. 53**) will be sent as individual orders after the conference.

PAPERS SUBMISSION AND REVIEW

ICSoba aims to keep high scientific and technical innovation nature of papers, focused on industrial application of scientific results.

ICSoba Publication policy was updated on June 10, 2024, to reflect publication ethics, copyright agreement and Artificial Intelligence (AI) use. See at <https://icsoba.org/policies/>.

Papers submission and review is managed within ConfTool <https://www.conftool.net/icsoba2024> which is customized for the ICSoba 2024.

ORGANISING COMMITTEE

Paper review is made by ICSoba Technical Committee under the leadership of the Program Directors Bernard Allais and Michel Reverdy and Subject Organizers with the team of 65 reviewers representing global aluminium industry.

The subject organisers are:

Keynotes	Bernard Allais, Michel Reverdy
Bauxite	Sebastien Fortin, Andrey Panov
Alumina	Sebastien Fortin, Andrey Panov
Bauxite Residue	Thymis Balomenos
Electrodes	Houshang Alamdari
Aluminium Electrolysis	Vinko Potocnik, Dagoberto Severo
Casthouse Operation	Joseph Langlais

TECHNICAL FIELD TRIP

On **Thursday 31 October** a Refinery technical field trip will be organised to:

 [Gardanne, France](#)



The Alteo Gardanne Alumina refinery located approximatively at 320 km from Lyon. The program includes a return trip from Lyon using the TGV high speed train.

Alteo offers a tour of its historic bauxite residue storage centre, operating as a lagooning from 1900 to 1970, then as a dry-storage from 2006 until its rehabilitation in 2022. The refinery bus tour will give participants a brief overview of the refinery and its industrial transformation. Participants will be able to appreciate the scale and complexity of the refinery and a unique opportunity to immerse themselves in the history of alumina by discovering the plant - the cradle of the Bayer process - which has been located in Gardanne for 130 years.

Only 50 seats are possible for each visit, allocated on a first come, first served basis. There will not be any extension of the seat number.

TECHNICAL FIELD TRIPS

On **Thursday 31 October** a Smelter technical field trip will be organised to:

 [Loon-Plage, France](#)



The Aluminium Dunkerque Smelter is located at about 750 km from Lyon. The program includes a TGV return trip from Lyon (with an option for a one-way visit to Paris, Brussels or London).

The tour will take you through the 3 production departments:

The Carbon department with automated anode storage area and baking furnace.

The Reduction department is equipped with 264 AP30 pots powered at 400 kA.

The Casthouse with 3 vertical direct-casting machines and an ingot line, 7 furnaces supplying a capacity of 300 kt/year in rolling slabs and foundry ingots.

An ambitious decarbonization project called LowCAI will also be presented.

VENUES OF THE CONFERENCE

The conference is set at the Lyon Convention Centre <https://www.ccc-lyon.com/en>.



The conference headquarter hotel is the [Marriott Cité Internationale](#), a 3 minutes' walk from the Convention Centre.



HOTEL BOOKING INSTRUCTIONS

A limited block of rooms is booked for the conference participants who can use the dedicated link for hotel booking with a discount rate. Reservations will be allocated on a first-come, first-served basis.

[Book Your Group/Corporate Rate | Marriott International](#)

CONFERENCE GALA DINNER

**Tuesday
29/10**

Gala Dinner in L'Abbaye de Collonges

Enjoy an evening in one of the iconic Lyon's restaurants managed by the Paul Bocuse (3 Michelin stars) company. Dinner is taking place in the Grand Limonaire room (with an organ equivalent to 110 musicians).



SOCIAL EVENTS

There will be several social events taking place during ICSOBA 2024. Please refer to the latest details at <https://icsoba.org/2024/> website.

Participation requires specific registration.

**Sunday
27/10**

Memorial Trip to the Maurienne Valley

Join for a full day trip to the "Aluminium Valley", the place of early aluminium industrial production in France.

The trip will highlight these historical sites and includes a visit of the Aluminium Museum of Saint-Michel-de-Maurienne.

The trip is subject to a minimum of 15 registrations and limited to 50.

SOCIAL EVENTS

**Monday
28/10**

Cruse cocktail dinner party on the Rhône and Saône rivers

In honour of our diamond sponsor: Fives company. This boat trip starting directly on the Lyon Convention Centre dock will take you over the main points of interest of Lyon city.



**Wednesday
30/10**

Fun cocktail dinner party at Fort de Vaise

In honour of our diamond sponsor: Reel company. Enjoy the last night of the conference with DJ music, casino gaming, etc. at picturesque Fort de Vaise, downtown Lyon city.



These two social events are strictly limited to 160 participants each allocated on a first-come, first-served basis.

REGISTRATION FEES PAYMENT and REFUND

To register, please use ConfTool which is customized for the ICSOBA 2024 <https://www.conftool.net/icsoba2024/>.

Several changes in conference fees and refund policy are implemented this year triggered by last years' experience, to minimize waste (catering) and reduce last minute workload.

Those regarding the field trip organisation and cost are required by the specific location of the visited plants and the long-distance travel from the conference city.

Payment policy:

- ICSOBA is expecting participants to pay for the conference fee when they register through the provided online payment option within ConfTool.
- If registration fee is not paid at corresponding period (Early bird, Regular, Late, Last minute) end date, registration for the conference will be automatically cancelled, unless a special agreement with the organizers is made.
- Participants will receive a reminder of this open payment one week before the corresponding deadline.

Refund policy:

ICSOBA understands there could be circumstances when a participant who has paid his/her conference fee must cancel his/her conference participation. To be consistent with ICSOBA encouragement to early registration, an enhanced refund policy has been defined:

- A cancellation received by ICSOBA (info@icsoba.org) more than two weeks before the opening date of the conference (i.e. **received before 15 October**) will lead to a full refund of the total amount paid (conference fee plus optional registration), minus 50 USD processing fee.
- A cancelation received by ICSOBA (info@icsoba.org) less than two weeks before the conference opening date will lead to 25% refund of conference fee paid.

CONFERENCE FEE STRUCTURE (USD)

Category		up to 31/7 Early Bird	1/8 - 30/9 Regular	1/10 - 15/10 Late	16/10 - 30/10 Last Minute
Conference	Speaker (register before 27/8)	1000	1000	n/a	n/a
	Corporate speaker	900	900	n/a	n/a
	Participant	1000	1200	1500	2100
	Corporate participant	900	1080	1350	1890
	Student, Retired	400	400	500	700
	Exhibitor participant	900	1080	1350	1890
Online conference	Participant	400	400	400	400
	Corporate participant	360	360	360	360
Sun 27/10 "memorial" trip	All categories	50	50	50	50
Mon 28/10 social event	All categories	50	50	50	50
Wed 30/10 social event	All categories	50	50	50	50
Refinery visit return trip	All categories	200	200	250	350
Smelter visit return trip	All categories	300	300	375	525
Smelter visit one way	All categories	200	200	250	350
Proceedings	All categories	350	350	350	350

REFUND POLICY

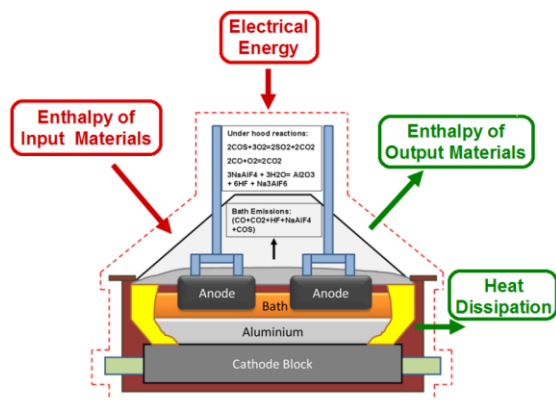
	up to 31/7 Early Bird	1/8 - 30/9 Regular	1/10 - 15/10 Late	16/10 - 30/10 Last Minute
Full refund less 50 USD administrative fee				25% refund
Registration automatic cancellation*	24/07	23/09	11/10	23/10

*On these dates, all registered participants who have not paid their registration fee (on ConfTool) will receive an email informing them that, to keep this rate, their payment must be received by xx/yy. On this date, and unless a specific agreement is reached with ICSOBA management, their registration will be automatically cancelled and they will have to re-register at the rate of the day.

VISA SUPPORT and INVITATION

Please check if a visa is needed for your trip, then contact ICSOBA organizers at info@icsoba.org. If you need an invitation letter for obtaining your visa for France, you will be able to download it directly from ConfTool when registered. A participation letter for your employer is also available from ConfTool if required.

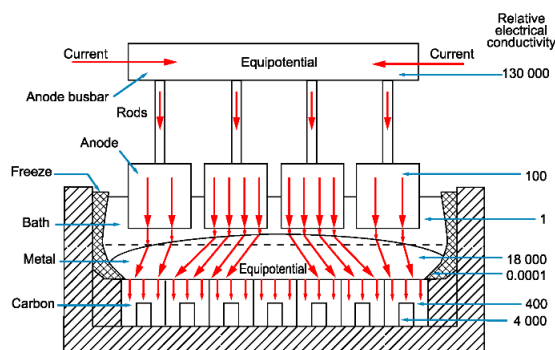
ELECTROLYSIS SHORT COURSE



To continue successful practice of ICSOBA 2023 in Dubai, the **2nd Aluminium Electrolysis Short Course** will be organised before ICSOBA 2024 in Lyon at the hotel **Marriott Lyon Cite Internationale** from **24 to 26 October**.

It will be a unique opportunity to learn from experts in the field about the electrolysis process, both theoretical and practical aspects, digitalisation and decarbonisation challenges of our industry.

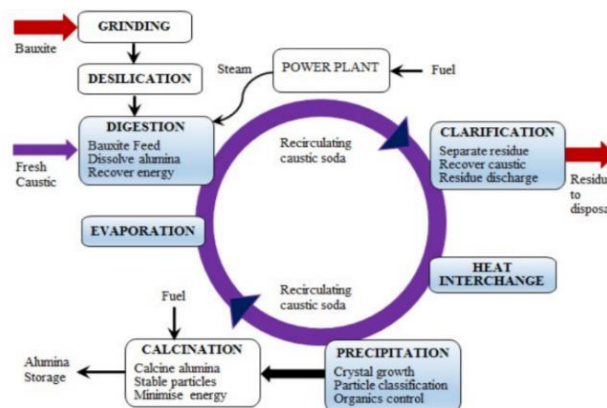
Please find more information at the [Course Flyer](#).



Register soon – there are a limited number of seats available!!!

To register for both courses please contact Dagoberto Severo: dagoberto.severo@icsoba.org.

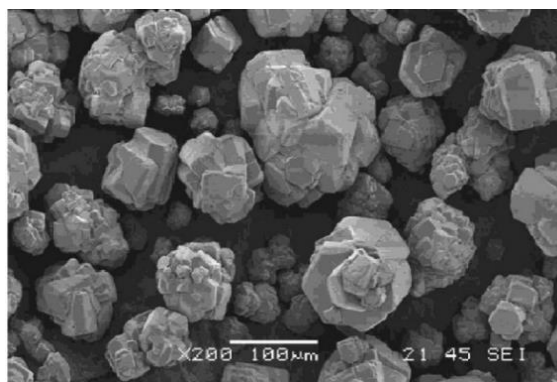
BAYER PROCESS SHORT COURSE



ICSOBA has the honour to announce the **1st Bayer Process Short Course**. The course will be held at the hotel **Marriott Lyon Cite Internationale**, Lyon from **24 to 26 October 2024**.

The course offers a theoretical overview of the Bayer process, the state-of-the-art technology and equipment to produce alumina, as well as practical aspects of alumina production.

Please see the [Course Flyer](#) for essential details.



ICSOBA 2024 STUDENT AWARD

ICSOBA is delighted to announce its **2024 Student Award Program**. This program aims to provide support to students and young scientists involved in the field of primary aluminium production to present and publish their research outcome at ICSOBA Conference.



Its objective is to foster the exchange of ideas, recognize students' contributions to the advancement of science and technology, and promote education and training opportunities for the younger generation.

All eligible applications will undergo a thorough review by the ICSOBA award committee, and applicants will be notified of the results no later than the 31 July 2024. Each awardee will receive a grant of **1000 USD**.

If you are currently enrolled in a **Master's** or **Ph.D.** program, or if you are a **postdoctoral fellow** at a university, we encourage you to download the [Application Form](#).

Once completed, please submit the form to Houshang.alamdari@gmn.ulaval.ca.

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, for 61 years, 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 over 45 major companies who are participating in the yearly ICSoba Corporate Member Council to voice their view and influence ICSoba strategy.

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

ABOUT THE HOST SPONSORS



Alteo is a world leader in the production of specialty alumina and develops products with high added value. Headquartered in Gardanne in Provence for more than a century, Alteo is also established in 16 countries around the world and exports its products to over sixty countries.

Owned by the industrial group UMSI, Alteo has more than 400 employees and achieved in 2022 a turnover of 184 million euros, over 86 % of which is achieved on the international market.

As the only specialty alumina production site in France with internationally recognized expertise, the group places R&D, innovation, and sustainable development at the heart of its growth strategy. Alteo has successfully completed its industrial transformation by 2022 with the end of bauxite refining, while guaranteeing the stable quality of its raw material. Thus, Alteo has developed a modern and efficient industrial tool that allows it to develop on four key markets: advanced ceramics, high-performance refractories, battery separators and charges for heat dissipation.

<https://www.alteo-alumina.com/en>

ABOUT THE HOST SPONSORS



Virtuous aluminium for a sustainable world

France's last major primary aluminium plant, **Aluminium Dunkerque** specializes in the manufacture of slabs and ingots, in a wide variety of alloys, for high value-added applications in the automotive, transport and packaging sectors.

Major player in primary aluminium in Europe, the plant is in Loon-Plage, Northern France, since 1991, at the heart of an area that is now strongly committed to decarbonizing its industries.

As one of the world leaders in low-carbon aluminium production, Aluminium Dunkerque has reduced its emissions (scope 1 and 2) by 17% since 2013 and emits four times less greenhouse gases than the global average for the sector.

On the strength of these assets, the company intends to play a major role in the European production of low-carbon aluminium for the benefit of its customers and communities. It is accelerating its energy and environmental transition as part of an ambitious decarbonization project called LowCAL.



<https://www.aluminiumdunkerque.fr/>

ABOUT THE HOST SPONSORS

RioTinto

Rio Tinto is one of the world's leading metals and mining companies with a global workforce of over 52 000 and an extensive portfolio of operating assets spanning 35 countries. We find better ways to provide the materials the world needs to grow and decarbonise. These metals and minerals are found everywhere in everyday life: aluminium for cars, copper for renewable energy technologies, iron ore for the steel in our cities and lithium for electric vehicles.

Rio Tinto is a global leader in aluminium, with a large-scale, vertically-integrated business: bauxite mines and alumina refineries as well as smelters which, in Canada, are powered entirely by clean, renewable energy. Our unique assets allow us to provide aluminium certified as responsible with a low-carbon footprint, traceable from mine to metal. Through its Matalco joint venture, Rio Tinto also offers customers a diverse portfolio of recycled aluminium solutions, and our ELYSIS joint venture with Alcoa is developing a disruptive technology that eliminates all direct greenhouse gas emissions from the aluminium smelting process.

Follow the Rio Tinto website for more information <https://www.riotinto.com/>

ABOUT THE HOST SPONSORS



As an innovative, medium-sized, family-owned company, **TRIMET** develops, produces, recycles, casts, and sells modern light-metal products made of aluminium at nine locations. A staff of about 2 400 ensure, together with our customers, that automobiles are more economical, aircraft are lighter, wind turbines and electricity plants are more efficient, buildings are more modern, and packaging is more ecological. TRIMET has acquired a unique knowledge of materials since its beginnings in 1985, and has retained three things in particular: authenticity, reliability and, of course, its passion for aluminium.

TRIMET France has two production factories: the Saint-Jean-de-Maurienne aluminium smelter in Savoie, one of the first in the world; and the Castelsarrasin foundry in Tarn-et-Garonne. Both companies have more than 100 years of industrial know-how and expertise. They are constantly updating their production facilities to guarantee high-quality, competitive products. With its two factories in France, TRIMET France produces primary aluminium for its industrial customers and offers them a wide range of products tailored to their needs: aluminium wire rod, primary foundry alloy, rolling slabs and T-bar ingots.

Learn more at: <https://www.trimet.eu/en/>

SPONSORSHIP

As you well know, organizing such conference would simply not be possible without the strong support of our Conference Sponsors.

ICSOBA conference, *"The technology Conference of the Aluminium Industry, for the Aluminium Industry"*, gives opportunity to your Company to maximize its exposure to the primary aluminium decision makers and influencing technologists.

Please consult the [Sponsors Fees and Benefit table](#) which illustrates the different options for on-site benefit but also through the Whova application, which will be used both by the on-site and the online participants.

If you are willing to support ICSOBA activities and to showcase your Company at ICSOBA 2024, feel free to contact claud.vanvoren@icsoba.org for any further information.

EXHIBITION

As part of the conference agenda, the exhibition of advanced equipment and technologies is organized allowing your company to showcase your recent developments. Exhibitors will be able to upload the brochure and video on the Conference Application – Whova- which enables connection with on-site and online participants.

Please contact Dr. Bijoy Satpathy bijoy.satpathy@icsoba.org for booking of the exhibition booth and other details.

CONTACT US

For more information, please contact us at info@icsoba.org