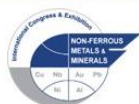


# Newsletter

*Volume 22*

*December 2019*



**International Committee  
for Study of  
Bauxite, Alumina and Aluminium**

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*The picture on the front page shows the group picture made outside of the Siberia hotel in Krasnoyarsk, where the 2019 ICSoba conference took place.*

*In case you consider publishing in this forum, please contact the editors before writing your article.*

*Deadlines for a June issue is 10th of June and for a December issue it is 10th of December.*

## Foreword

Dear ICSoba Members,

When writing this foreword, 2 months after the 2019 Krasnoyarsk conference, the ICSoba Board is already fully engaged in the preparation of our 2020 conference which will be hosted by Sunstone and will take place in Jinan, Shandong province, China from 12<sup>th</sup> to 16<sup>th</sup> October 2020.

And our obsession is: what can we do to further improve ICSoba conferences?

For the fourth time since 2016 you gave us your feedback about the conference and numerous suggestions of improvement through the online satisfaction survey.

For the second time, the representatives of ICSoba Corporate Members met together and gave us direct feedback on their expectations about our vision, mission and conference.

Those different messages are consistent and clear:

- Strong support to ICSoba vision to be the “Technology Conference of the Aluminium Industry, for the Aluminium Industry” and multiple testimonies that we are improving year after year,
- Stick to ICSoba DNA:
  - Balanced program between Bauxite, Alumina and Smelting/Carbon;
  - Move ICSoba conferences to where Aluminium action is taking place;
  - Plant visit as part of conference program
- Open the floor for testing new initiatives like panel discussion on value in use of alumina in smelting.

Your messages have been received loud and clear and we are preparing Jinan conference with these in mind.

We are even more convinced of the absolute requirement to give more value for the delegate to attend ICSoba conference when considering the economic context of our industry again striving with depressed prices and oversupply.

Rest assured we are exploring every opportunity to provide better offer to better serve the aluminium industry.

As part of this strategy, we are pleased to confirm the renewal of our collaboration with Quartz Business Media for the third Future Aluminium Forum to be held in Quebec City, Canada from 25<sup>th</sup> to 27<sup>th</sup> May 2020. More details on ICSoba contribution will come early next year.

Talking about your feedback with regards to ICSoba matters, we heard comments about the website. I’m very pleased to invite you to visit our brand new website (<https://icsoba.org/>) which, I hope, will give you a user friendly experience to access all ICSoba information. Some parts are still “work in progress” but please bear with us and you will soon be able to enjoy a full searchable access to ICSoba library from the origin to the latest conference.

With regards to information flow, I suggest you update your [LinkedIn](#), [Twitter](#) and [Facebook](#) links not to miss any news from ICSoba.

Finally, I would like to pay tribute to Bhavani S. Pani who stepped down from ICSoba Board for health reason after 3 years of service and dedication. The Board decided to nominate Dr. Bijoy Satpathy as Acting Director, Asia, pending next Director election during ICSoba 2020.

So, it's time for me to wish all of you a very happy festive season and all the best for 2020.

Looking forward to welcoming you in Jinan,

With my best regards,  
Dr Claude H. Vanvoren  
Chairman of ICSoba

## ICSoba 2019 in Krasnoyarsk, Russia 16 – 20 September 2019



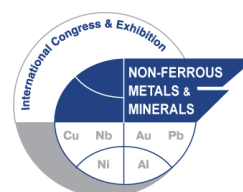
**Organized by:**



**In cooperation with:**



**RUSAL**



### ***Conference Organization***

The International Committee for Study of Bauxite, Alumina & Aluminium (ICSoba; [www.icsoba.org](http://www.icsoba.org)) organized the 37<sup>th</sup> International Conference and Exhibition in Krasnoyarsk, Russia from 16 to 20 September 2019 in cooperation with 25<sup>th</sup> “Aluminium of Siberia” Conference within XI International Congress & Exhibition “Non-Ferrous Metals and Minerals” (NFM).

ICSoba came to Russia for the first time in 2004 when the event was organized in Saint Petersburg. Then, in September 2013 ICSoba celebrated its 50<sup>th</sup> anniversary in Krasnoyarsk with the Nonferrous Metals of Siberia (NFM) Congress. This year’s event also took place in Krasnoyarsk because its territory is one of the senior and major metallurgical regions of Siberia and is in the forefront of resources and minerals mining in the world, especially in such metals as copper, nickel, cobalt, aluminum, gold and platinum. Major projects on development resource base and deep minerals recycling are implemented in Krasnoyarsk region. In addition, this part of the world is so rich in scientific and practical knowledge in the field of the aluminum industry. Therefore, it was important to hold the ICSoba conference there.

General coordination of the event was assured by Dr. Claude Vanvoren, Dr. Frank Feret, Dr. Andrey Panov, Matthieu Arlettaz, Prof. Dr. Peter Polyakov, Olga Popova and Margarita Berngardt.



## Speaker Program:

The speaker program comprised over 160 lectures in three parallel programs for Bauxite, Alumina and Aluminium and in other NFM sessions with topics of general interest (casting, shaping and heat treatment of non-ferrous metals). Very high-quality papers were selected for ICSOBA presentations (107) and published in the volume 48 of TRAVAUX conference proceedings. This year again, the number of TRAVAUX pages exceeds 1000 and Michel Reverdy, Dr. Vinko Potocnik, Matthieu Arlettaz and Dr. Andrey Panov did an outstanding job putting together the conference technical program and TRAVAUX proceedings.



The plenary session, chaired by Prof. Dr. Peter Polyakov (Siberian Federal University), Michel Reverdy (EGA, UAE), Viktor Mann (RUSAL ETC) and Dr. Claude Vanvoren (ICSOBA), comprised presentations by:

**Viktor Mann**, Technical Director - UC RUSAL, Russia

**Bibhu Mishra**, Head, Manufacturing Centre of Excellence - Hindalco, India

**Abdulla Habib**, Chief Operations Officer - Aluminium Bahrain, Bahrain

**Alexander Krokhin**, Head, Developments of New Alloys - UC RUSAL, Russia

**Dr. Yin Zhonglin**, Chief Engineer (Alumina) – CHINALCO, China

**Joe Woo**, Associate Director, R&D - Sunstone Development, China

**Dr. Houshang Alamdari**, Director - REGAL Aluminium Research Centre, Canada and

**Martin Jackson**, Analyst, Aluminium costs - CRU Group, United Kingdom



Subsequently there were four separate sessions:

- Bauxite and bauxite resources, Alumina production and Bauxite Residue - organized by Dr. Andrey Panov (UC RUSAL), and Stephane Beaulieu (Aughinish Alumina, Ireland) with 55 presentations
- Aluminium reduction organized by Dr. Vinko Potocnik (independent consultant) and Prof. Peter Polyakov (Siberian University) with 33 presentations
- Carbon and carbon materials - organized by Matthieu Arlettaz (R&D Carbon, Switzerland) with 16 presentations
- Casting – organized by prof., Dr. D.G. Eskin (Brunel University London, UK) and A.Yu. Krokhin, (UC RUSAL) with 29 presentations.



Subjects were approached from a scientific or practical point of view and were presented either in English or Russian while the audience could listen to the simultaneously translated English or Russian version through their earphones. Accompanying slides were projected both in English and Russian languages.



More than 120 participants from 20 countries took part in the Bauxite & Alumina Section, including 37 companies from 16 countries presented papers, a total number of published and presented papers in the topics - bauxite, alumina and bauxite residue processing, was 55.

The directions covered wide range of professional topics - from basic studies in physical and chemical fundamentals of technological process, to development of new technologies and equipment, performing industrial tests and their introduction into industrial practice were covered. The latest research and results of practical developments in operation of bauxite mines, reclamation of residue disposal areas and bauxite residue processing were also presented, a separate section on alternative technologies of alumina production and experience in introducing new technologies for obtaining high-value-added products was held. The report by Ann Duncan (Hatch) provided a detailed overview of current research directions for improving alumina production technology (Alumina Technology Roadmap) and a vision for innovations and improvements to be implemented through 2050. Proposals were made to establish a joint technology database and to combine research efforts to correspond to this vision.

During the conference, the following new directions and practices for alumina production were presented: the use of low-cost pneumatic separation technology to enrich bauxite from carbonates, end-to-end optimization of bauxite mine and alumina refinery when switching to a new raw material source, impurities behavior in high-temperature processing of boehmitic bauxites, optimization of thermal flow sheets in evaporation and digestion in alumina production, advanced descaling methods of heat exchanger and tank equipment, advanced methods of mathematical simulation of digestion, thickening, precipitation and calcination, optimization of calcination furnaces and the use of furnaces of new design for production of both smelter grade and non-metallurgical alumina, experience of technology improvement and production of special grades of alumina, new alumina production projects by hydrochloric acid method and assessment of prospects for construction of large scale alumina production by alternative technologies, information on performed studies and large-scale tests of bauxite residue processing in agriculture, to extract alkalis and rare earth elements, production of a number of other products from bauxite residue.

According to domestic and international participants - the conference was the strongest in the alumina direction in the world in 2019.

Aluminium Reduction Technology section had 32 full papers and 34 presentations from 14 countries. The papers presented topics on environment, potroom operation, cell modelling, design and control, alumina transport to the potroom and alumina feeding, anode reactions, electrolyte studies, cathode materials, cathode wear and autopsies, wettable cathodes and inert anodes.

In the broad group of environment and resource saving technologies, there were 12 papers. The most notable ones were on perfluorocarbon (PFCs) generation and emissions (four papers) of which the paper on new rules and calculations for PFC emissions by Intergovernmental Panel Climate Change (IPCC) won the best paper award (see the table below). The new calculations for CO<sub>2</sub> equivalent of PFC emissions will include the emissions from high voltage anode effects as until now and also emissions from low voltage anode effects, the so-called background PFC emissions, hitherto unaccounted for. Spent potlining is another environmental threat for which no

comprehensive worldwide solution has been put in practice. A paper from China showed that the country which produces 56 % of world aluminium still disposes of most spent potlining (SPL) for land filling in spite of much research for economical and environmentally friendly disposal and recycling. On the other hand, a paper by Emirates Global Aluminum (EGA) reported environmental benefits of using the spent potlining in cement production, where EGA recycles all generated spent potlining now. This paper also won best paper award (see the table below). Carbon monoxide (CO) is a well-known by-product of aluminium electrolysis, but it has been assumed that most of it is burned in the cell. An EGA paper showed that most of the generated CO is emitted to the atmosphere, which normally poses no environment hazard because of its low concentration but causes a problem to EGA because it cannot satisfy too strict UAE environment regulation for CO emissions.

Resource saving technologies were presented by RUSAL, notably a substantial decrease of specific energy consumption in electrolysis as well as the use of unshaped material, lignite semi-coke, for bottom cathode lining, which is cheaper to build than the traditional brickwork and can be in major part recycled. In the same line, a modelling paper from Canada showed that it might be possible to design high amperage cells with energy consumption of 10 kWh/kg Al, which has not been obtained in practice anywhere yet.

In industrial deployment of new high amperage technologies, RUSAL presented the latest results of successful RA-550 Technology in the pilot plant in Sayanogorsk smelter, which was also offered for the industrial visit after the conference. ALBA presented the successful start-up of Potline 6 with 424 cells of EGA DX+ Ultra Technology, now operating at 465 kA.

Carbon Materials section had 11 full papers and 17 presentations from 7 countries. The sessions were on raw materials with 3 presentations, on production of anodes and cathodes with 8 presentations, on quality and performance of anodes and cathodes with 4 presentations and on anodes and cathodes for aluminium reduction technology with 2 presentations.

On the raw materials side a very interesting paper reports on a new technology developed to produce an engineered calcined petroleum coke (CPC) product from coke fines presently only used for energy production through combustion. As CPC prices increase, fines loss cannot be compensated economically by energy production. Pelletizing green petroleum coke (GPC) fines can produce high bulk density pellets referred to as anhydrous carbon pellets (ACP). The paper summarizes key results including pilot anode properties showing improvements in baked anode density, electrical resistivity and other properties when using ACP. Rain Carbon is currently working on building a full scale, commercial plant in the US. In the session on production of anodes and cathodes, a paper from the Greek smelter reported the major reconstruction of central casing of open top baking furnace with a view to increase its lifespan and reduce the total costs comparing to full reconstruction. This paper won the best carbon paper award.

This conference was a great opportunity to communicate achievements to the aluminium community and to meet other experts in the field. Attracting the best minds to the conference is critical because innovators demonstrated solutions to some of the greatest industry challenges.

## The Best Papers Awards

The best papers awards were given to six different authors in the Bauxite & Alumina & Residue session (3 awards), Aluminium and Carbon sessions.

Section	Paper	Company	Authors
<b>Bauxite</b>	Biodiversity Research Consortium (BRC): A technical and scientific partnership in search of the "State of Art" in Mining Area Recovery	Hydro Paragominas - Mineração Paragominas S.A	Gizélia Matos, Jonilton Paschoal and <u>Victor Barbosa</u>
<b>Alumina</b>	Production of Ceramic and Smelter Grade Alumina in Outotec's Dual Purpose CFB Calciner	Outotec, Norway	<u>Linus Perander</u> , Yasar Bayraktar, Gokhan Kurşat Demir, Seyit Avcu, Mustafa Server, Sonia Noack, Alessio Scarsella
<b>Bauxite Residue</b>	Industrial Trials Results of Scandium Oxide Recovery from Red Mud at UC RUSAL Alumina Refineries	RUSAL ETC, Russia	<u>Olga Petrakova</u> , Alexander Kozyrev, Alexander Suss, Andrey Panov, Sergey Gorbachev, Marina Perestoronina, Sergey Vishnyakov
<b>Carbon</b>	Major reconstruction of central casing of open top baking furnace with a view to increase its lifespan and reduce the total cost comparing to full reconstruction	Mytilineos Metallurgy Business Unit (AoG)	<u>Christos Zarganis</u> , Eftychia Liantza, Harilaos Dolgyras, Giannakis Christos, Christophe Molinier and Kosmetatos Dionysios
<b>Reduction</b>	Latest Progress in IPCC Methodology for Estimating the Extent of PFC Greenhouse Gases Co-evolved in the Aluminium Reduction Cell and Challenges in Reducing these Emissions Environmental benefits of using spent potlining in cement production	Light Metals Research Centre, University of Auckland Emirates Global Aluminium	<u>David Wong</u> , Barry Welch, Pernelle Nunez, Lukas Dion and Alexey Spirin  Chun Man Chow, Srinivasa Pujari, Michael Pan, Tanvi Kulkarni, Mohamed Mahmoud, Heba Akasha, <u>Mohammad Al Jawi</u> and Salman Abdulla

Papers and PowerPoint presentations of this and previous conferences are available to ICSoba members at no cost. ICSoba has scanned all historic proceedings, the so-called Travaux volumes. Searchable file could be consulted shortly on the revamped ICSoba web-site at <http://www.icsoba.org>. There is full list of papers of all volumes, which can be used as a guide for finding specific information or paper.

## ICSOBA Medals



As in the past, the "ICSOBA Commemorative Medal" constitutes a special recognition and may be awarded only to a small number of recipients each year. The medal may be awarded to those members who achieved significant scientific or practical results within the field of work, or who notably strengthened ICSOBA organization or promoted its international scientific and industrial cooperation. The name of the awarded person is inscribed on the medal, and the awarding event is published in the NEWSLETTER. The pictures documenting the Gala Dinner and the awards ceremony can be seen at the ICSOBA website.

At ICSOBA 2019 in Krasnoyarsk only one medal was awarded, which went to **Viktor Mann**, Technical Director at UC RUSAL, for welcoming ICSOBA in Russia and facilitating the organization of the highly successful conference, thus seeing to ICSOBA's prosperity and growth. Three Al Maple Leaf dishes with ICSOBA name were offered to the visited plants as tokens of appreciation for hosting ICSOBA delegates. This year the dishes were awarded to Achinsk alumina refinery, Krasnoyarsk aluminium smelter and Sayanogorsk aluminium smelter.



**Viktor Mann – Technical Director of UC Rusal**

## Student Awards

ICSOBA offers great incentives for retired delegates and for students (including post docs) to attend the conference. From reduced fees to free meals to award opportunities, students can receive all the benefits the conference has to offer at a low cost.

Every year ICSOBA continues to strengthen programs to support students from various countries. This year ICSOBA subsidized participation of four students in the event: **Quiven Inoque Ebicha** (Mozambique), **John Anawati** (Toronto University), **Aleksey**

**Fedorov** and **ElDeeb Amr** (both of St. Petersburg Mining University).





At REGAL 2019 Student's Day in Quebec City, a poster award was presented thanks to ICSoba sponsorship to 3 tied recipients: Mr. Asem Hussein, Ms. B  n  dicte Robitaille and Ms. Eileen Espiritu, for the excellence of their scientific poster.



### ***Exhibition***

During the Conference (16 - 19 September), 50 different companies staged an exhibition of latest technologies, equipment and other devices for the bauxite, alumina and aluminium industry.

Complete list of the exhibitors is available on the NFM Congress website: <http://www.nfmsib.com/>.

### ***Plant Visits***

On 20 September delegates had the option of visiting a full day technical excursion to Rusal's Achinsk refinery where nepheline ore is used as raw material instead of bauxite, or to Rusal's newest Khakas smelter, or participate in a visit to Krasnoyarsk smelter, the largest S  derberg smelter in the world.



The plant management in all three places demonstrated a very good preparation and openness in the course of the visits.



Achinsk Alumina Refinery



RA-550 pots

## Sponsorship

The importance of aluminium in the Non-Ferrous Conference & Exhibition was reflected in UC Rusal's support as host sponsor and co-organizer. Moreover, **Viktor Mann**, Technical Director at UC RUSAL acted as ICSOBA 2019 President. Other ICSOBA sponsors that contributed to the realization of the event were: Hatch (gold), Nalco Water, Outotec, Solvay (all silver) and GEA (bronze).

Details of the 2020 sponsor fees and benefits are in <https://icsoba.org/how-to-become-a-sponsor/>.



## ICSOBA MATTERS - Life of the Association

To help you stay informed, here is the most recent news about ICSOBA. Happy reading!

### *ICSOBA 2020 Board of Directors*

Earlier in 2019 Bhavani S. Pani stepped down from the Board of Directors for a health reason. This created a vacancy, which the Board decided to fill nominating Dr. Bijoy Satpathy. He became the acting Director, Asia until the next election that is planned for the ICSOBA 2020 conference. Present Board composition is illustrated in the picture below.



**From left to right: Bijoy Satpathy, Houshang Alamdari, Andrey Panov, Frank Feret, Claude Vanvoren, Matthieu Arlettaz and Michel Reverdy.**

### *ICSOBA Regional Representation (IRA)*

To support its strategic objectives, ICSOBA aims to increase its worldwide visibility and capacity to regularly interact with Bauxite, Alumina and Aluminium players around the world. For this purpose, ICSOBA aims to deploy a network of regional “ambassadors”.

ICSOBA Regional Ambassadors (IRA) are persons demonstrating the willingness to support ICSOBA future by successfully identifying new Corporate Members as well as contributing to the success of ICSOBA annual conference.

In order to promote the IRA, to ensure their visibility and to formalise their official status within ICSOBA organisation, the Ambassadors will be publicized on ICSOBA website. Their portrait, professional details and address as well as an @icsoba.org email will appear on the website.

## ICSoba Membership

ICSoba members are active in different fields and specializations, and they work within different social and economic frameworks, but there is one thing they have in common: they share the same conviction of the strategic role of aluminium in the present stage of world development.

There are two (2) classes of members in the association namely Individual Members and Corporate Members. The Corporate Membership is renewed annually.

### The 2019/2020 Corporate Members are:

 <a href="http://www.amber-development.com">http://www.amber-development.com</a>	 <a href="http://www.bokela.com">http://www.bokela.com</a>	 <a href="http://www.carbone-savoie.com">http://www.carbone-savoie.com</a>
 <a href="http://www.cronustechology.no">http://www.cronustechology.no</a>	 <a href="http://www.dadcoalumina.com">http://www.dadcoalumina.com</a>	 <a href="http://www.ega.ae/en">http://www.ega.ae/en</a>
 <a href="https://www.fivesgroup.com">https://www.fivesgroup.com</a>	 <a href="https://www.hatch.com">https://www.hatch.com</a>	 <a href="http://www.hindalco.com">http://www.hindalco.com</a>
 <a href="https://www.hydro.com">https://www.hydro.com</a>	 <a href="http://www.mal.hu">http://www.mal.hu</a>	 <a href="https://www.markert.eu/en">https://www.markert.eu/en</a>
 <a href="https://nalcoindia.com">https://nalcoindia.com</a>	 <a href="https://www.ecolab.com">https://www.ecolab.com</a>	 <a href="http://www.outotec.com">http://www.outotec.com</a>
 <a href="https://www.reelinternational.com/en">https://www.reelinternational.com/en</a>	 <a href="https://www.riotinto.com">https://www.riotinto.com</a>	 <a href="https://www.rusal.com">https://www.rusal.com</a>
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 <a href="https://www.stas.com/en">https://www.stas.com/en</a>	 <a href="http://www.sun-stone.com/En">http://www.sun-stone.com/En</a>	 <a href="http://www.vedantaresources.com">http://www.vedantaresources.com</a>
 <a href="http://www.alum.ro/en">http://www.alum.ro/en</a>		

For more details on the membership please visit [www.icsoba.org/Membership](http://www.icsoba.org/Membership).



## Website

Shortly before the conference the ICSOBA website was completely revamped and appears in a new format ([www.icsoba.org](http://www.icsoba.org)). The modification process and enlarging the content continued after the event.



Printed proceedings of past ICSOBA events, the so-called TRAVAUX volumes, have been scanned to separate searchable pdf files. The Tables of Contents of the scanned TRAVAUX volumes are in process to be made public on the website <https://icsoba.org/publications/>. There will be full list of papers of all volumes, which can be used as a guide for finding specific information or paper. Searchable files could be consulted shortly on the ICSOBA website.

If you are a member, please apply to [info@icsoba.org](mailto:info@icsoba.org) to obtain a copy of any past proceeding. Please note that the past NEWSLETTERS are currently available on the ICSOBA website. Your feedback to make the website more attractive is welcome.

## Article on ICSOBA

Following INCAL 2019 conference in Bhubaneswar, India earlier this year, an article “*Contribution of ICSOBA in setting development trends in global Bauxite, alumina and Aluminium industry*” was published in International Aluminium Journal (Volume 95, July / August 2019). See more articles here: <https://icsoba.org/association-history/>.

## ICSOBA 2020

China’s role in the global aluminium industry justifies a repeat of the successful ICSOBA 2010 and 2014 conferences in China. Information is regularly updated at <https://icsoba.org/icsoba-2020/>.

### 1. Invitation

The International Committee for Study of Bauxite, Alumina & Aluminium (ICSOBA) has great honor to announce the 38<sup>th</sup> International Conference and Exhibition of ICSOBA. The event will be held in Jinan, Shandong, China from 12 to 16 October 2020. Our host sponsor Sunstone ([www.sunstone.com](http://www.sunstone.com)) will welcome you in the heart of Shandong province where most powerful Chinese aluminium and alumina producers are located, there will be excellent representation of production companies, research institutes and equipment manufacturers. We look forward to seeing you at the ICSOBA 2020 in China.

## 2. Conference Objectives

- Review the status of bauxite, alumina and aluminium industries in the world with emphasis on China, the biggest and the most dynamically developing aluminium hub in the world.
- Discuss promising research developments aimed at production, productivity and cost improvements.
- Highlight proposed Greenfield and Brownfield activities in the aluminium industry.
- Discuss advances in the field of environment and safety.
- Update market aspects of bauxite, alumina and aluminium and their products.
- Provide an excellent opportunity to interact with international experts, scientists, engineers, technology suppliers, equipment manufacturers and representatives of aluminium industries the world over.
- Facilitate university students' meetings with industry representatives.

## 3. Dates

The event will occur in the week from 12 to 16 of October 2020.

## 4. Place of the Conference

The conference will take place in beautiful city of Jinan, Shandong province, China. More information about the venue will be given as it becomes available.

## 5. Registration

Conference registration shall be done in advance using ConfTool which is customized for ICSoba 2020 Conference. The access to ConfTool is via ICSoba website (link to be provided later). After registration you will receive an invoice for paying by credit card (using Stripe), PayPal or wire transfer.

## 6. Conference Languages

Presentations will be held in English or Chinese with simultaneous translation, and PowerPoint presentations will be shown in both languages. All papers and presentations will be published in English on USB stick, available to all participants. The paper proceedings book (TRAVAUX, vol. 49) will be available after the conference based on individual orders.

## 7. Exhibition

During the Conference there will be an Exhibition of latest technologies, equipment and other devices for the aluminium industry. Companies can give a presentation at the Exhibition. More information on the Exhibition to follow.

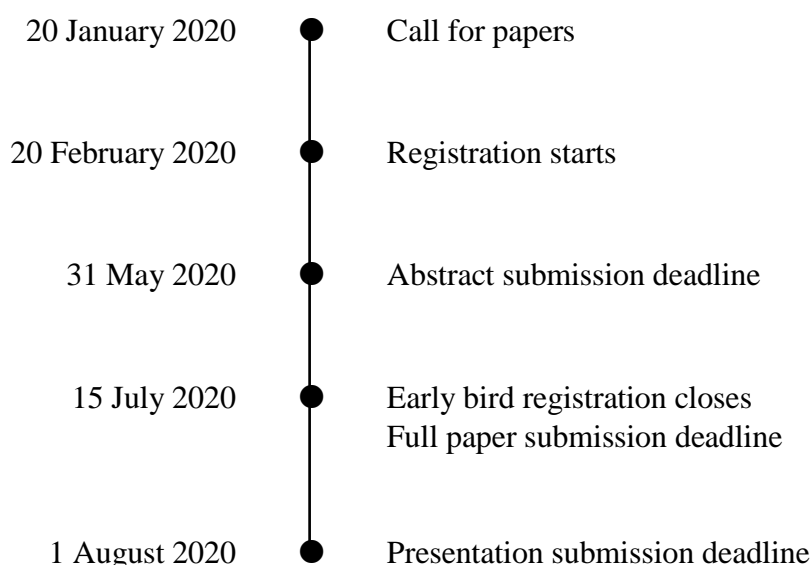
## 8. Field Trips

The ICSoba-2020 program provides for 3 technical field trips in the last day of the conference to:

- **Alumina Refinery:** Binzhou Beihai Xinhe New Material Co., Ltd. located in Wudi County, Binzhou in Shandong Province. This is one of Weiqiao's alumina production sites. The plant has capacity is about 8 Mtpy and employs Bayer process treating imported bauxites from Republic of Guinea. The refinery started up in February 2012,

- **Aluminium smelter:** Binzhou Beihai Xinhe New Material Co., Ltd. located in Wudi County, Binzhou in Shandong Province. Huihong is one of Weiqiao's primary aluminium production sites. Its capacity is about 670 ktpy, with startup date October, 2015. The smelter employs modern high amperage technologies;
- **Carbon Plant:** Shandong Chuangxing Carbon Material Co., Ltd. This 600 K/t/y latest technology prebake carbon anode plant is located in Beihai Economic Development Zone in Binzhou in Shandong Province. It is a joint venture of Sunstone, Weiqiao and Chuangxin group. This project will build a 1.8Mt anode plant and an 8 000 tonnes cathode plant in four phases. Current capacity: The first 600kt prebaked carbon anodes production line started up at the end of 2018.

## 9. Timeline



## 10. Sponsors

We invite companies to become sponsors of this conference. Potential SPONSORS are welcome to visit the ICSOBA website at <https://icsoba.org/how-to-become-a-sponsor/>.

## 11. About the 2020 Host Sponsor

**Sunstone** ([www.sun-stone.com](http://www.sun-stone.com)) established in 2003 specializes in the production and marketing of prebaked carbon anodes to the aluminum industry both domestically in China as well as the export of anodes throughout the rest of the world. Sunstone currently operates 6 production facilities in China, 3 in Shandong province, 2 in Gansu province and 1 in Chongqing. The total capacity is close to 2 million tons a year, in which about 25% are for export. Sunstone believes in the application of science and technology to produce the highest quality and most cost-effective anodes in the aluminum industry. Sunstone is committed to Research and Development in order to meet and exceed customer requirements both in China and abroad.

Further information will be supplied through ICSOBA's website.

## Associated Organizations

The list of associated organizations can be found on the ICSoba website at <https://icsoba.org/associated-organisations/>. These organizations are: Aluminium Association of India, ABAL, AlCircle, Aluminium International Today, Aluminium Network, AZ-China, Brazil Mineral, China Nonferrous Metals Industry Association (CNIA), Chalco Zhengzhou R&D Center, International Aluminium Institute, International Aluminium Journal, Light Metal Age, Metal Bulletin, METALS - Open Access Metallurgy Journal, Minerals & Metals Review Online, Non-Ferrous Metals Siberia, Quartz Business Media, Red Mud Project.

In 2020 ICSoba will closely collaborate with Associated Organizations and be represented at the corresponding events:



<https://www.metalbulletin.com/events/bauxite-alumina-seminar/details.html>



[www.icsoba.org](http://www.icsoba.org); [www.futurealuminiumforum.com](http://www.futurealuminiumforum.com)



<https://conference2020.redmud.org/>



### ***ICSoba's Executive Office***

ICSoba is registered at Corporations Canada, Ontario: 802906-7, and Registraire Des Entreprises, Québec: 1167982181.

ICSoba executive office is located at 128 Des Fauvettes, Saint Colomban, QC, J5K0E2 Canada.

All inquiries are to be sent to ICSoba by email to [info@icsoba.org](mailto:info@icsoba.org).

*The Icsoba Annual Event is the  
Technology Conference of the Aluminium Industry,  
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