



IBAAS 2018 – A Brief Summary of the Conference & Exhibition at Hotel Leela, Mumbai, 5-7 Sept, 2018

This year IBAAS has organized 7th International Conference and Exhibition (IBAAS-2018) during September 5 - 7, 2018 at Hotel Leela, Mumbai, India. The theme of the IBAAS-2018 conference is **“Indian Aluminium Industry – Status, Strategies & Way Forward for Accelerated Growth”**. This Conference covered complete value chain from bauxite to aluminium downstream products in two and half days of interactive meet. About 220 delegates from all over the world participated in this mega Aluminium event in Mumbai. The conference and networking sessions were followed by visit to Taloja Aluminium downstream facility of HINDALCO and Aditya Birla Science and Technology Company Private Limited (ABSTCPL) on 8th Sept. The conference was inaugurated by Mr. Satish Pai, Managing Director, HINDALCO and Mr. Ron Knapp, Secretary General, International Aluminium Institute. The conference was also graced by Guests- Prof. Amol Gokhale, Vice President, Non-Ferrous Metallurgy Division, The Indian Institute of Metals and Dr. Anupam Agnihotri, Director, JNARDDC, India.

Other important dignitaries from India included Dr. Biswajit Basu, Deputy Head Aditya Birla Science & Technology Co. Pvt. Ltd. (the research & technology arm of Aditya Birla), Mr. Bibhu Mishra, Head, MCoE, HINDALCO and Mr. Phillip Campbell, Director – Technical, VEDANTA. Among the foreign participants, leading bauxite, alumina & aluminium experts such as Mr. Friday Gao, Consultant & Senior Product Manager of Asian Metal, China, Ms. Christine Frogner Brath, Norsk Hydro ASA, Norway Ms. Samantha Wietlisbach, IHS MARKIT, Mr.



Mohamed Lamine Sy Savané, Director CPDM, Guinea, Colin Chapman, SRK Consulting (UK) Limited and Ms. Sunny Huang, BGRIMM Lilan Consulting Corp., Ltd, China were present.

As many as 75 technical papers were presented in the conference during the deliberations covering wide range of subjects from Bauxite Beneficiation to Aluminium Downstream products. The presentations were grouped into following sessions:

- ✓ Key Note Addresses and Presentations by Sponsors on First Day
- ✓ Parallel Technical Sessions on Second Day
 - Non-Metallurgical Bauxite & Alumina
 - Value from Waste
 - Aluminium Smelting
 - Aluminium Downstream
- ✓ There were two parallel sessions on third day – Bauxite & Alumina sessions.

IBAAS technical committee and Chairmen of various sessions selected best 2 papers for award and they are listed below:

➤ **Bauxite-Alumina Session Best Papers**

- I. Impact of Swirl Flow in Mixing of Oxygen and Fuel for Burners in Rotary Kiln by Kiran Bhor, ABSTCPL, India
- II. Silica removal studies of gibbsitic bauxites from Gujarat by Mahesh Kulkarni, Ashapura Minechem, India



➤ **Non-Metallurgical Bauxite-Alumina and Value from Waste**

- I. Recovery of rare earths and major metals from bauxite residue (red mud) by Chenna Rao Borra, Department of Material Science and Engineering, TU Delft, Delft, The Netherlands
- II. Effect of seed properties on liquor productivity & product quality in precipitation process for development of special products by Suchita B. Rai, JNARDDC, India

➤ **Aluminium Smelting Best Papers**

- I. Networking and Centralized Monitoring Station of Pot Tending Assembly by N.S. Ashok Shankar, Vedanta Limited, India
- II. Thermo Chemical Reduction of Aluminium Chloride (AlCl_3) instead of electrolysis by Shreekant Kulkarni, Sejal Techno Services, India

➤ **Aluminium Downstream**

- I. Ingenuity at Work through Digitization by Mritunjay Kumar Pandey, Hindalco Foil Plant – Mouda, India
- II. Alloy Ingot development and stabilization by Shavi Goyal & Sandeep Pratap Singh, BALCO, India

Main points and outcome of the conference are given below:



- ❖ On the first day, Mr. Satish Pai, Managing Director of HINDALCO highlighted the issues being faced by Aluminium industry in India, particularly power reliability, availability of raw materials and disposal of red mud, SPL and other waste products. He said he spends 30-40% of his time on the aspects of waste disposal systems to stress on its importance to the aluminium industry. Ron Knapp in his key note address has shown the positive side of Aluminium industry and indicated that demand is growing at 4% globally and an extra 3 Mt of primary production required each year. Dr. Agnihotri, Director JNARDDC presented a 'Indian Technology Road Map for Aluminium: Vision 2030' and highlighted the Advantage India, Challenges and Technology Road map with Vision 2030. Further Prof. D.N. Singh of IIT Mumbai showed a way to prepare man-made soil from bauxite residue generated during alumina production.
- ❖ There were two presentations on Bauxite, Alumina and Aluminium industry of China by Friday Gao of Asian Metals and Sunny Huang of BGRIMM Lilan Consulting Corp., Ltd, China. The present alumina production capacity of China is 77.3 Million Tonnes per annum and Aluminium capacity has reached to 45.2 Mt/a in 2017. The rapid developments of Aluminium industry in China are unparalleled and Indian aluminium industry has to go a long way to come nearer to China's present Alumina and Aluminium production.
- ❖ Mr. Bibhu Mishra of HINDALCO presented the status of Aluminium Smelters in India and highlighted that rising energy prices & duties are key



concern for primary aluminum industry growth in India. Further Prof. Gokhale of The Indian Institute of Metals highlighted the major developments of Aluminium Downstream industry of India and showed the potential for future growth. There was a team of officials from Guinea – a west African country having number one position at present in bauxite resources and mining. Mr. Mohamed Lamine Sy Savané, Director CPDM presented a key note address on Status of Bauxite Mining & Export from Guinea and shown bauxite deposits being developed by Indian companies and on-going infrastructure project. Mr. Savane invited Indian companies to invest in bauxite mining and setting up alumina refinery in Guinea. Further Colin Chapman of SRK Consulting (UK) Limited shown the Importance of Assessing Infrastructure and Logistics Requirements at an Early Stage for the Development of Bauxite Projects. A status paper on availability of caustic soda, an important raw material for Alumina production is presented by Mayank Sharma of Grasim Chemical Division, India.

- ❖ The Platinum Sponsor of IBAAS-2018 **REEL Alesa SAS, France** has shown their excellent capabilities in materials handling and lifting system in Aluminium industry. **Shanghai Heat Transfer Equipment Co., Ltd., China** as Gold Sponsor presented their paper on plate heat exchangers used in Alumina refineries world over. Silver Sponsors of this conference & exhibition **Epsilon Carbon Pvt Ltd., Mumbai, India** and **Jingjin Environmental Protection Inc., China** also made their presentations. The presentation of the first day was concluded with the Video presentation - Aluminium Stewardship Initiative – Sustainability of Australia.



❖ On the second and third day, several technical papers were presented by leading Indian and foreign experts. Some among them are as follows:

- Discussion on pathways for doubling the resources in Eastern Ghats, India; lets learn from Guinea success story by AjitSahu, Vedanta
- An Initiative to Beneficiate High Silica Bauxite Ore by Rana Goswami, MBE India
- Aluminium Chemicals Market by Samantha Wietlisbach, IHS Markit, Switzerland
- World Specialty Alumina market (market overview and trends) Gildasby Fontaine, ALTEO Gardanne, France
- Production of pure sodium aluminates and fine precipitate alumina tri-hydrates through bicarbonate process by B.K. Satpathy, India
- SPL: Turning waste into value by Saikat Chatterjee, M.N. Dastur & Co. (P) Ltd., India
- Global & Domestic Scenario for Coal Tar Pitch by Vikram Handa, Epsilon Carbon Pvt. Ltd, India
- Ensuring availability of aluminium smelters through island operation capability by Niclas Krantz, Solvina AB, Sweden
- Emerging Downstream Growth by D.K. Das, Hindalco, India

India's Aluminium Sector:

- Circular Economy- with Aluminium as the Front Runner by Christine Frogner Brath, Norsk Hydro ASA, Norway



- The current developments in the European and German aluminium extrusion markets by Frank Busenbecker, ErbslöhAluminiumGmbH, WKW Group, Germany
- The Future of Aluminium Fuel Tankers in India by BiplavBasu Consultant, India
- Restart Behaviour and Impeller Arrangement for Re-suspension in Settled Slurry Tanks by René Rödenbeck, STC-Engineering GmbH, Germany
- Excellence in Pumps, Germany The application of piston diaphragm pumps in the Alumina Industry by Hein Krimpenfort, FELUWA Pumpen GmbH

On the third day in the concluding session, several leaders of Aluminium industry and delegates expressed their views for better organization and improve the quality of technical papers and presentations. It is suggested to invite outstanding bauxite, alumina and aluminium experts from all over the world to deliver and interact with Scientists and Engineers of Indian industry. There should be enough gap between various International events as IBAAS-2018 took place just before the Alumina workshop of Australia. It is recommended to re-start the bauxite exploration activities in the country to provide enough resources for refineries in the country.

At the venue of this conference exhibition was organized and 8 stalls were taken by following companies:

- REEL Alesa SAS, France
- Andritz Technologies Pvt Ltd, India



- Shanghai Heat Transfer Equipment Co., Ltd., China
- Ion Exchange (India) Ltd.
- Jingjin Environmental Protection Inc., China
- Shandong Hwapeng Precision Machinery Co., Ltd., China- 2 stalls
- Fives Group, France

A cultural program of classical dances was organized on the first day evening. Apart from Sponsors, the conference was supported by Solvay, Grasim of Aditya Birla and NALCO. The dinner, lunches and bags were sponsored by COBEX, AshapuraMinechem, Himadri Chemicals, Sanvira and Alumina Chemicals.
