



**INTERNATIONAL
BAUXITE ALUMINA & ALUMINIUM SOCIETY
SYMPOSIUM
ON
BAUXITE, ALUMINA AND ALUMINIUM**

**TECHNICAL
PROGRAM**

**SEPTEMBER 26-28, 2016
HOTEL RADISSON BLU & RESORT
SOUTH GOA, INDIA**

Welcome & Registration IBAAS - 2016

| Date | Time (hrs) | Speaker | Title |
|--|-------------|---|-------|
| 25-09-2016 | 15.00-19.00 | Registration Desk at Hotel Radisson Blu & Resort | |
| 26-09-2016 | 07.30-09.00 | Welcome & Registration | |
| | 09.00-10.30 | Inaugural Session | |
| | 09.00-09.10 | Presentation of Bouquets | |
| | 09.10-09.20 | Welcome address and IBAAS introduction- Dr. Nandi | |
| | 09.20-09.30 | Address of Mr. Abhijit Pati – VEDANTA | |
| | 09.30-09.40 | Address by Dr. Basu, Aditya Birla Group & VP (Non Ferrous) IIM | |
| | 09.40-09.50 | Address by Dr Anupam Agnihotri, Director, JNARDDC | |
| | 09.50-10.00 | Key Note Address by Dr. Chand, CMD, NALCO | |
| | 10.00-10.10 | Address by Dr. I .Manna, President, IIM & Director, IIT, Kanpur | |
| | 10.10-10.25 | Address Chief Guest – Secretary, Ministry of Mines, Govt. of India | |
| | 10.25-10.30 | Vote of Thanks by IBAAS | |
| | 10.30-11.00 | Inauguration of IBAAS 2016 Exhibition Followed by High Tea | |
| TS-1: Energy Reduction in Aluminium Smelting (IIM & IBAAS) | | | |
| Session TS-1.1 Context setting & Challenges | | | |
| (Session Chairman: Biswajit Basu, Co Chairman: Rene Von Kaenel) | | | |
| 26-09-2016 | 11.00-11.05 | Context Setting of theme symposium by Sadguru Kulkarni & Anupam Agnihotri | |
| | 11.05-11.30 | Indian Aluminium Industry – Challenges and Opportunities by Abhijit Pati, Vedanta | |
| | 11.30-11.55 | Recent Energy Reduction Initiatives at HINDALCO Smelters and Future Challenges by A T Mathew, Hindalco Industries Limited | |
| | 11.55-12.15 | PAT Cycle I outcome and Way forward by Vikas Ranjan GIZ – BEE | |
| | 12.15-13.00 | Energy Reduction in Aluminium Smelting by Halvor Kvannd, Professor Emeritus, Norwegian University of Science & Technology, Norway | |
| | 13.00-14.00 | Lunch Break | |

Session TS-1.2: Cell Technology**(Session Chairman: A Pati, Co-Chairman: Prof. H Kvande)**

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|-------------------|--------------------|--|
| 26-09-2016 | 14.00-14.45 | Development of a Low Energy Aluminium Smelting Solution for High Productivity Pots by Benoit Feve, Olivier Martin, Rio Tinto ALCAN |
| | 14.45-15.30 | Technology Roadmap of New Generation Aluminium Reduction Cell Multivariate Process Parameters Intelligence Control System by Hong Bo & Li Jianping, GAMI & CHALCO, China |
| | 15.30-16.00 | Tea Break |

Session TS-1.3: Electrode Technology**(Session Chairman: Benoit Feve, Co Chairman: A T Mathew)**

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|--|-------------|---|
| | 16.00-16.30 | Cathode & Modelling Solutions - Implementation of Low Energy Consumption Relining Electrolysis Cell Design at BALCO by SGL Carbon (Ghazanfar Abbas' Oscar Vera-Garcia) & BALCO (Abhishek Patel) |
| | 16.30-17.00 | Copper Bars for the Hall-Heroult Process by Rene von Kaenel, L Bugnion, J Antille, L von Kaenal, KANNAK LTD |
| | 17.00-17.30 | Enabling Operational Excellence in Metals Processing: New Ways of Using Times Series Big Data by Osvaldo Bascur, OSI-Soft, USA |
| | 17.30-18.00 | Inputs for Roadmap & Concluding Remarks by all session chairs and speakers |
| | 18.00-18.30 | CEO's/CTO's/IBAAS joint session with CII/AFC |

PARALLEL SESSION 2 (26-09-2016)**TS-2: Special Alumina & Non Metallurgical Bauxite**

| Date | Time (hrs) | Speaker | Title |
|---|-------------------|--|---|
| (Session Chairman: Richard Flook, Co Chairman: Vinod Sood) | | | |
| 26-09-2016 | 11.00-11.10 | Richard Flook | Background & Theme Paper |
| | 11.10 - 11.35 | Alison Saxby, Roskill, UK | Global Review and Update of the Non Metallurgical Bauxite and Alumina Industries |
| | 11.35 - 12.05 | Samantha Wietlisbach, IHS, Switzerland | Aluminium Chemicals Market – Focus on Water Treatment Chemicals and Fire Retardants |
| | 12.05 - 12.30 | Xavier Bapst, Alteo – Alumina Co., Japan | Specialty Alumina: Non Refractory Applications Require Purer and Finer Products with Cost Effective Solutions |

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| | 12.30-13.00 | Iggy Tan, Altech Chemicals, Australia | High purity alumina of Altech Chemicals |
| 26-09-2016 | 13.00 - 14.00 | Lunch Break | |
| | 14.00 - 14.30 | Martin.Z.Ma, Zhejiang Zili Corporation Limited, China | Development of Sintered Alumina & its Application in Ladle Refractory Lining |
| | 14.30 - 15.00 | Shankha Chatterjee Almatiss Alumina Pvt. Ltd. India | Premium Alumina Solutions for Modern Steel Making |
| | 15.00 - 15.30 | S Sankaranarayanan, Consultant, Belgaum | Importance of Bayer Process R&D for Speciality Alumina Business |
| | 15.30 - 16.00 | Tea Break | |
| | 16.00 - 16.30 | Nageswar Kapuri, HINDALCO | Effect of Different Properties of the Speciality Alumina on the Application of Refractories & Ceramics |
| | 15.30 - 16.00 | Jayantibhai Bhatt, Gujarat | Prospects of Ceramic Proppants in Gujarat |
| | 17.00 - 17.30 | Gajanan Thakre, Castwel Industries, Nagpur, India | High Alumina Cement Production and Future Prospects in India |

TS-3: IBAAS COMMON Session on 27-09-2016

| Date | Time (hrs) | Speaker | Title |
|---|--------------------|------------------------|---|
| (Session Chairman:Ms. Christine Frogner Brath, Co Chairman: H.Mahadevan) | | | |
| 27-09-2016 | 09.00-09.20 | Kiran Anant | Sustainability issues and opportunities for Aluminium in Asia Pacific |
| | 09.20-09.40 | R K Garg | Environmental Aspects in Aluminium Industries |
| | 09.40-10.00 | Sringeri Chandrashekar | Not All Aluminium is Created Equal |
| | 10.00-10.20 | Ashok Nandi | WhyGuinea Bauxite is Considered Best in the World? |
| | 10.20-10.40 | D P Misra | India-Opportunities and Challenges for Aluminium Industry |
| | 10.40-11.00 | Anupam Agnihotri | Challenges in R & D |
| | 11-00-11.30 | Tea Break | |

Presentation by Sponsors

| Date | Time (hrs) | Speaker | Title |
|-------------------|--------------------|--------------------|---|
| 27-09-2016 | 11.30-11.45 | Presentation by | Andritz Technology Pvt. Ltd., Kolkata |
| | 11.45-12.00 | Presentation by | SGL CFLCE GmbH, Germany |
| | 12.00-12.10 | Presentation by | Jingjin Environmental Protection Inc. China |
| | 12.10-12.20 | Presentation by | Cytec – Solvay Inc, USA |
| | 12.20-12.25 | Presentation by | Hindalco / ABSTCPL |
| | 12.25-12.30 | Presentation by | Vedanta |
| | 12.30-12.35 | Presentation by | Nalco |
| | 12.35-12.40 | Presentation by | Larsen & Toubro Limited (L&T) |
| | 12.40-12.45 | Presentation by | Ashapura Mine Chem, Mumbai, India |
| | 12.45-12.50 | Presentation by | Andru Minerals, Andhra Pradesh India |
| | 12.50-12.55 | Presentation by | Mythri Infra, Vizag, India |
| | 12.55-13.00 | Presentation by | AlCircle, Singapore |
| | 13.00-14.00 | Lunch Break | |

Parallel Session 4 (27-09-2016) TS-4: Bauxite-Alumina

(Session Chairman: Sringeri Chandrashekar, Co Chairman: B Senapati)

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|-------------------|-------------|---|--|
| 27-09-2016 | 14.00-14.20 | Samantha Wietlisbach, IHS, Switzerland | Caustic Soda: Round Up and Outlook for Alumina Production |
| | 14.20-14.40 | Mayank Sharma, Aditya Birla Chemicals, India | Caustic Soda Scenario of the World |
| | 14.40-15.00 | Alpha Barry, Solvay USA | Technical Presentation on Max HT |
| | 15.00-15.20 | Ajay Popat, Ion Exchange (India) Limited, Mumbai | Specialty Process Additives for enhancing Alumina Production and Quality |
| | 15.10-15.30 | Kumaresan T, Ashish Mishra, ABSTL, Hindalco Industries Limited | Numerical Modelling of High Rate Decanter (HRD) Feed-Well |

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| 27-09-2016 | 15.30-16.00 | Tea Break | |
| (Session Chairman: Garvesh Pal, Co Chairman: Satish Kumar) | | | |
| | 16.00-16.20 | Jens-Hong Schmidt, SEP Salt Evaporation, Switzerland | Evaporative System for the Alumina Industry – The Choice |
| | 16.20-16.40 | Ajay Popat, Ion Exchange (India) Limited, Mumbai | Total Water Management and concept of ZLD in Alumina Industry |
| | 16.40-17.00 | I N Bhattacharya, IMMT Bhubaneswar, India | Processing of Various Industrial Wastes for the Extraction of Alumina |
| | 17.00-17.20 | Kumaresan T, Ashish Mishra, ABSTL, Hindalco Industries Limited | Experimental Analysis on Flow and Mixing Characteristics of Scale –Down Digester Model |
| | 17.20-17.40 | P G Bhukte, JNARDDC, India | Characteristics of West coast (Goa) Laterite and Possible Techniques for Up-Gradation |

Parallel Session 5(27-09-2016)
TS-5: Aluminium Smelting

| Date | Time (hrs) | Speaker | Title |
|--|-------------------|--|---|
| (Session Chairman: G.G. Pal, Co Chairman: Manoj Chulliparambil) | | | |
| 27-09-2016 | 14.00-14.20 | S. Pietrzyk, AGH- University of Science and Technology, Poland | The Cathode Materials Wear Rate in Aluminium Electrolysis - a Laboratory Study |
| | 14.20-14.40 | Amit Gupta, ABSTCPL & Hindalco | Impact of Cathode Lining Design on Aluminium Reduction Cell performance |
| | 14.40-15.00 | Xian-Qing Luo, GAMI, China | BusbarRefix Method of Aluminium Reduction Cell and Electromagnetic Analysis |
| | 15.00-15.20 | Alison Saxby, Roskill, UK | Petroleum coke in the aluminium industry, current and future supply trends |
| | 15.20-15.40 | VivekSaxena , Vedanta | Reduction in carbon footprint by implementing energy efficiency improvement initiatives |

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| 27-09-2016 | 15.40-16.00 | Tea Break | |
| (Session Chairman: Anupam Agnihotri, Co Chairman: Vivek Saxena) | | | |
| | 16.00-16.20 | Pratap Singh, et al, Vedanta, | Initiatives for improving energy efficiency in aluminium smelting pots |
| | 16.20-16.40 | R J Sharma, JNARDDC, Nagpur | JNARDDC's Journey on the Path of Enhancement in Energy Conservation in Aluminium Sector |
| | 16.40-17.00 | Xian-Qing Luo, GAMI, China | Improvement Effect Analysis for Long-Term Management Optimization to Electrolysis Production Parameter |
| | 17.00-17.20 | Mukul Modak, Hindalco Industries Limited, Renukoot | Use of High Sulphur Coke at Hindalco Renukoot Carbon Plant |
| | 17.20-17.40 | Gopi Krishnan, Vedanta | Systematic approach to energy management through implementation of ISO:5001 |
| | 17.40-18.00 | Umesh Prasad, BALCO, Korba | Reduction of Specific Heavy Furnace Oil consumption in Baking Furnace |

Parallel Session 6(27-09-2016)

TS-6: Aluminium Downstream and Transportation

| (Session Chairman: Shanker Gopalkrishnan, Co Chairman: Vilas Tathavadkar) | | | |
|--|---------------|---|---|
| Date | Time | Speakers | Topic |
| 27-09-2016 | 14.00 - 14.15 | Shanker Gopalkrishnan President, Madras Consultancy Group, Chennai | Background & Theme paper |
| | 14.15 - 14.40 | Devotosh Kumar Das Chief Marketing Officer, HINDALCO Industry Ltd. | Key note address Aluminium Downstream - The Future in Transportation Industry |
| | 14.40 - 15.05 | Vikram Jhunjunwala Managing Director Century NF Castings | The use of recycled aluminium in the transportation sector |
| | 15.05 - 15.30 | S. Ravishankar Director Super Autoforge Pvt. Ltd | Automotive applications of aluminium forgings |

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| | 15.30 – 16.00 | Tea Break | |
| | 16.00 - 16.25 | Aric Blake, Andritz Metals, USA | Overview of furnace aspects of recycling of aluminium |
| | 16.25 - 16.50 | Shekhar Dravid Vice President AliconCastalloy Limited | Aluminium castings |
| | 16.50 - 17.15 | Shankadeep Mukherjee CRU | Evolving aluminium market in the Transport Sector |

Parallel Session 7(28-09-2016)

TS-7: Aluminium Smelting

| (Session Chairman:A. T. Mathew, Co Chairman: Gopi Krishnan) | | | |
|--|--------------------|---|---|
| Date | Time | Speakers | Topics |
| 28-09-2016 | 09.00-09.30 | Chen Shiyue, Kang Zihua, CHALIECO, China | Effect of Potassium Salt on Aluminium Electrolyte Liquidus Temperature |
| | 09.30-10.00 | Nitin Tiwari, BALCO Korba | SPL Utilisation in Cement and Steel Industries |
| | 10.00-10.30 | Kang Zihua, Cao Bin, GAMI, China | Study on the molten salt structure of Na ₃ AlF ₆ -Al ₂ O ₃ system by high temperature X diffraction |
| | 10.30-11.00 | Tea Break | |
| | 11.00-11.20 | Subhadeep Khan, BALCO, Korba | Improving Energy Efficiency in Supply Chain in Aluminium Industry |
| | 11.20-11.40 | P K Sahu, Aditya Aluminium, Hindalco Industries Limited | Energy reduction initiatives at Aditya Aluminium |
| | 11.40-12.00 | YAN Feiya el. ChaliecoGami, China | Discussion on Life of Large Aluminium Electrolysis Cell Influenced by Energy saving |

Parallel Session 8(28 -09-2016)

TS-8: Red Mud Handling, Storage &Utilisation

(Session Chairman: D P Misra, Co Chairman: H Mahadevan)

| Date | Time (hrs) | Speaker | Title |
|------------|-------------|---|--|
| 28-09-2016 | 09.00-09.10 | Vinod Sood / Sadguru Kulkarni | Background & Theme Paper |
| | 09.10-09.30 | D N Singh, IIT, Mumbai, India | Red mud Containment: Muri case study |
| | 09.30-09.50 | J DSharma, TERI | A Novel Technology for Greening the Red Mud pond |
| | 09.50-10.10 | Satish Kumar, Vedanta, Lanjigarh, India | Best Practices in Red Mud Management at Vedanta |
| | 10.10-10.30 | CaiSuning, IBDBSE & Energy Tech. Corp. China | Shenwu's Innovative Process by Comprehensive Utilization of Bauxite Residue (Red Mud) |
| | 10.30-11.00 | Tea Break | |
| | 11.00-11.20 | B. K. Satpathy, Subrat Kar, Abhilash, NALCO and NML Bhubaneswar, India | Extraction of Rare Earth Elements from East Coast Bauxite Residue |
| | 11.20-11.40 | S Bhaurao, Utkal Alumina, Rayagada, Odisha | Study on safe storage of Bauxite Residue at Utkal Alumina |
| | 11.40-12.00 | N.Gangadhara Reddy, B. Hanumantha Rao and B.K. Satpathy, IIT, Bhubaneswar | Variations in the Mineralogical Compositions of Red Mud Waste Calcined at Different Temperatures |

Parallel Session 9 (28-09-2016)
TS-9: Aluminium Downstream&Conductors

| (Session Chairman: Vilas Tathavadkar, Co Chairman: Shanker Gopalkrishnan) | | | |
|--|--------------------|---|--|
| Date | Time (hrs) | Speaker | Title |
| 28-09-2016 | 09.00-09.05 | Vilas Tathavadkar | Context setting of Theme |
| | 09.05-09.35 | Arup Krishna Saha, Minex Metallurgical Company Limited, India | Energy Saving opportunity in Aluminium Industry |
| | 09.35-10.05 | Koushik Roy, Vedanta | Cast House productivity improvement through TQM Initiatives |
| | 10-05- 10.30 | Shahin Ahmad, ABSTCPL & HINDALCO | Reduction of variation in tensile properties of AA1350 high UTS grade wire rod |
| | 10.30-11.00 | Tea Break | |
| | 11.00-11.20 | R. Anantha, Associated Group | Energy Efficient Conductors |
| | 11.20-11.40 | Shahin Ahmad, ABSTCPL & HINDALCO | New Alloy Development for HTLS Conductor Application |
| | 11.40-12.00 | R N Chouhan, JNARDDC, Nagpur | Development of Super Thermal Resistant Al-Zr Alloy for Overhead Transmission Lines |
| | 12.00-13.00 | Common Concluding Session | |
| | 13.00-14.00 | Lunch/ End of the Symposium | |

IBAAS -2016 PROGRAM AT A GLANCE

| Date 25-09-2016 Time 15.00-19.00 Registration Desk at Hotel Radisson Blu& Resort | | | | | | | | |
|--|--|---|---|---|---|--|---|--|
| Time | 26 th Sept 2016 (Monday) | | 27 th Sept 2016 (Tuesday) | | | 28 th Sept 2016 (Wednesday) | | |
| 07.30-09.00 | Welcome & Registration | | TS-3 Common IBAAS Session (09.00-11.00) | | | TS - 7 Aluminium Smelting (09.00- 10.30) | TS - 8 Red Mud Handling, Storage & Utilisation (09.00- 10.30) | TS - 9 Aluminium Downstream & Conductors (09.00 - 10.30) |
| 09.00-10.30 | Inaugural Session | | | | | Tea Break (11.00-11.30) | | |
| 11.00-12.00 | TS-1 Bauxite- Alumina (11.00- 13.00) | TS-2 Special Alumina & Non Metallurgical Bauxite (11.00-13.00) | Presentations by Sponsors (11.30-13.00) | | | TS - 7 Aluminium Smelting Contd. (11.00-12.00) | TS - 8 Red Mud Handling, Storage & Utilisation Contd. (11.00- 12.00) | TS - 9 Aluminium Downstream & Conductors Contd. (11.00-12.00) |
| 12.00-13.00 | | | | | | Common Concluding Session (12.00 - 13.00) | | |
| 13.00-14.00 | Lunch Break (13.00-14.00) | | | | | | | |
| 14.00-15.00 | TS-1 Bauxite- Alumina Contd. (14.00- 15.30) | TS-2 Special Alumina & Non Metallurgical Bauxite Contd. (14.00-15.30) | TS-4 Bauxite - Alumina (14.00- 15.30) | TS-5 Aluminium Smelting (14.00 - 15.40) | TS - 6 Aluminium Downstream and Transportation (14.00-15.30) | End of the Symposium | | |
| 15.00-16.00 | Tea Break (15.30-16.00) | | | | | | | |
| 16.00-17.00 | TS-1 Bauxite- Alumina Contd. (16.00- 18.30) | TS-1 Bauxite-Alumina Contd. (16.30-18.30) | TS-4 Bauxite Alumina Contd. (16.00- 17.40) | TS-5 Al. Smelting Contd. (16.00 - 18.00) | TS - 6 Aluminium Downstream and Transportation (16.00-17.15) | | | |
| 17.00-18.00 | | | | | | | | |