



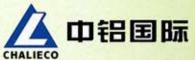
NOVEMBER 27-29, 2014

HOTEL NOVOTEL VISAKHAPATNAM VARUN BEACH VISAKHAPATNAM, INDIA



INTERNATIONAL BAUXITE, ALUMINA & ALUMINIUM SOCIETY (IBAAS)

in cooperation with



CHINA ALUMINUM INTERNATIONAL ENGINEERING CO., LTD. (CHALIECO)



JAWAHARLAL NEHRU ALUMINIUM RESEARCH DEVELOPMENT & DESIGN CENTRE (JNARDDC)

An International Conference on

Technological Improvements & Market Developments In Aluminium Industry with Special Reference to Value Added Products of Bauxite, Alumina & Aluminium

Sponsors



Ministry of Mines, Government of India





WorleyParsons, Australia

Jingjin Environmental Protection Equipment Co.Ltd., China

Co-Sponsors







Sesa Sterlite, India

Carborundum Universal Limited, India

Almex USA

Supporters





Exhibitors



WorleyParsons, Australia





Weir Minerals (India) Private Limited



Precision Light & Air Pty Ltd., Australia

Co-Organisers





Co-Sponsor-In-Name



Media Partners

















Participating Companies

























































































































CURRENT STATUS

Encouraging response is being received from several companies and experts for the contribution of technical papers / presentations in this symposium. Some of the participating companies of IBAAS-CHALIECO-JNARDDC - 2014 symposium are as follows:

- Alcircle Pte. Ltd., Singapore
- Aditya Birla Group, India
- Aditya Birla Novelis
- Almatis Alumina Pvt. Ltd
- Almex USA Inc.
- ALTEO Gardanne, France
- Aluminium International Today, USA
- Amber Development, France
- Anrak Aluminium Ltd., India
- Arkitechno Consultants (I) Pvt.Ltd. India
- Ashapura Minechem, India
- Asia Minechem Pte Ltd., Singapore
- Asia Tricon Energy Ltd., China
- Axis Mineral Resources SA, Guinea
- Bharat Aluminium Company Limited (BALCO), India
- Bharat Heavy Electrical Limited (BHEL), India
- Bhuvaneshwari Mineral Consultancy, India
- Calsmelt Pty Ltd, Australia
- Carborundum Universal Ltd., India
- Century Extrusions Ltd. (CEL), India
- Changsha Engineering & Research Institute Ltd. of Nonferrous Metallurgy, China
- Chemical Research Centre of the Hungarian Academy of Sciences, Hungary
- China Aluminium International Engineering Co., Ltd. (CHALIECO), China
- China Nonferrous Metals Processing Technology Co., Ltd
- CRU, India
- CSIR-Central Glass & Ceramic Research Institute, India
- CSIR-National Metallurgical Laboratory (NML), India
- CSIR-NEERI, India
- Cytec Industries Inc., USA
- Datacode, India
- Defence Metallurgical Research Laboratory (DMRL), India
- ECLTM France
- European Aluminium Association AISBL, Belgium
- Guiyang Aluminum Magnesium Design and Research Institute Co., Ltd. (GAMI), China
- Gerald Metals S.A., India
- Gimpex Limited, India
- Glencore, India
- Glory Pacific Bauxite, Korea
- Gujarat Credo Mineral Industries Ltd., India
- Gujarat Mineral Development Corporation Ltd. (GMDC)
- GVS Envicon technologies Pvt Ltd., Mumbai, India
- HINDALCO Industries, India
- Indian Space Research Organisation (ISRO), India

- Dynamic Mining, Guinea
- Jawaharlal Nehru Aluminium Research, Design & Development Centre (JNARDDC), India
- Jingjin Environmental Protection Inc., China
- L&T, India
- Ma'aden, Saudi Arabia
- Madras Consultancy Group, India
- Meta Asia, India
- Minerals and Metals Review (MMR), India
- NALCO An Ecolab Company, Australia
- National Aluminium Company Ltd. (NALCO), India
- National Institute of Technology, India
- NonFerrous Materials Technology Development Centre (NFTDC), India
- Norsk Hydro ASA, Norway
- Orbite Aluminae Inc., Canada
- Outotec GmbH, Germany
- Prana World Consulting Pty Ltd., Australia
- Precision Light and Air Pty Ltd, Australia
- Refractories Winodw, China
- Rio Tinto, Australia
- Sapa Extrusions, India
- Saurashtra Calcine Bauxite & Allied Industries Limited (SCABAL), India
- Sesa Sterlite Limited, India
- SGS India Private Limited, India
- Shenyang Aluminum & Magnesium Engineering & Research Institute (SAMI), China
- Shivam Minerals & Allied Industries Pvt. Ltd., India
- Skamol A/S, Denmark
- SKG Refectories Ltd., India
- Smatec Consultants Pty Ltd, Australia
- SPAN RESOURCES Management Services, India
- Spark Steel & Economy Research Centre (P) Ltd., India
- Sree Hari Special Refractories (P) Ltd., India
- Technical University of Sofia, Bulgaria
- The Minerals, Metals & Materials Society Technical (TMS), USA
- Trafigura India Pvt. Ltd, India
- Traxys Far East Ltd., China
- Trimex Sands P Ltd., India
- TRL Krosaki Refractories Limited, India
- Unimark International
- Unitop Multitech India Private Limited, India
- VIMETCO / Sierra Mineral Holdings Ltd, West Africa
- Vitol Group, London, UK
- Weir Minerals(India) Private Limited
- WorleyParsons Services Pty Ltd., Australia



INVITATION

On behalf of the organizing committee of IBAAS, CHALIECO and JNARDDC, it is our pleasure to invite you to participate in the 3rd IBAAS International Symposium, to be held in Visakhapatnam, Andhra Pradesh, India during November 27-29, 2014.

The title of IBAAS – 2014 symposium is "Technological Improvements & Market Developments in Aluminium Industry with Special Reference to Value Added Products of Bauxite, Alumina and Aluminium". The symposium organizing committee is formulating a world class program focusing on key topics and issues in the bauxite, alumina, aluminium and aluminium downstream industries. The Symposium will provide an excellent opportunity to meet and interact with International experts, scientists, engineers, entrepreneurs, representatives of bauxite-alumina-aluminium industries world over.

Best Regards,

IBAAS -CHALIECO- JNARDDC Organizers



IBAAS 2014 Organizing Team

Chief Patron

• Dr. Anup K. Pujari, Secretary, Ministry of Mines, India

Patrons

- Mr. He Zhihui, President CHALIECO
- Dr. Mukesh Kumar, CEO, Vedanta
- Mr. Anupam Agnihotri, Director, JNARDDC
- Mr. Yves Ocello, Director, Amber Development
- Mr. V. Balasubramanyam, ED (Production), NALCO
- Mr. Kamal Prakash, Director, Unimark International

Chairman of Technical Committee

• Dr. A.K. Mukhopadhyay, Outstanding Scientist, Project Director, Defence Metallurgical Research Laboratory (DMRL)

Technical Committee

- Mr. Niu Heng
- Mr. V.K. Sood
- Mr. H. Mahadevan
- Mr. Zhu Jiaming
- Mr. Anil Bhatnagar
- Mr. Michael Emond
- Dr. T.R. Ramachandran
- Dr. B.K. Satpathy
- Dr. Shyam Rao
- Dr. Abhijit Pathi
- Mr. B.S. Pani
- Mr. Sadguru Kulkarni

- Mr. L.S. Rao
- Dr. S. Sankaranarayanan
- Dr Y. Venkata Ramana
- Dr. Mohamed Najar P.A.
- Mr. B. Senapati
- Mr. R. N. Goyal
- Mr. P.V.R. Murthy
- Dr. P.G.Bhukte
- Mr. P.S.Jayan
- Mr. Janardan Rao
- Mr. S.V. Jamble

Event Management Committee

- Mr. DBVSN Raju
- Mr. Ouyang Wuhan
- Mr. Gua Pu

- Ms. Kabita Nandi
- Ms. Piyal Sen Gupta

Convener

• Dr. Ashok Nandi

Co-Convener JNARDDC

• Mr. M. J. Chaddha

Co-Conveners CHALIECO

- Ms. Xiao Peihuan
- Mr. Rao Xuyue
- Mr. Han Shengjun



TECHNICAL SESSIONS & INTERESTING PAPERS

About 12-14 special technical sessions are planned for IBAAS 2014 taking into account the latest issues and concerns of aluminium industry. Some of the interesting topics of technical papers under the planned sessions are enumerated below:

1. Raw Materials Security for Aluminium Industry

- Caustic Demand & Supply for the alumina Refineries of the World with specific reference to Asia & China by Shi Weimin, Asia Tricon Energy Ltd., China
- Potential Bauxite Sources for Indian and Chinese Alumina Refineries by Ashok Nandi & H. Mahadevan, IBAAS, India

2. Bauxite For Metallurgical Industries

- Beneficiation of High Silica Bauxite Ores of India by Mukesh Kumar & Bimalananda Senapati et al of Sesa Sterlite Limited, India
- Vietnam Bauxite-Alumina-Aluminium Industry by Tran Minh Huan, Vietnam's Ministry of Industry, Vietnam
- Geology, Mineralogy & Metallurgical Characteristics of Gondama Bauxite of Sierra Leone by Basudeb Datta et al of Sierra Mineral Holdings 1, Limited, Sierra Leone
- Trade-Off Study on the Characteristics and Washing Technologies of Two Different Types of ROM Bauxite by Yang Biao, *Changsha*, *China*

3. Future Trends in Non-metallurgical Bauxite Industries

- Future Prospects of Non metallurgical Grade Bauxite for Developing Specialty Alumina Products by T. Seetaramaiah, Sree Hari *Special Refractories (P) LTD, India*
- Indian Bauxite: How processing can improve its high temperature properties by H. S. Tripathi, CGCRI, India
- Prospects of Aluminium Chemicals Projects from Non-metallurgical Grade Bauxite in Gujarat State by J. V. Bhatt, Bhuvaneshwari Mineral Consultancy, India

4. Waste Management & Utilization

- Production Practice of Fe Concentrate Recovery out of the Red Mud in Alumina Produced from Pingguo Bauxite by Peng Xueqing, *Changsha, China*
- Issues and Opportunities related to Bauxite Residue Disposal and Re-use by S. Sankaranarayanan, HINDALCO, India
- Utilisation of red mud for extraction of rare earth elements by Abhilash, B.K.Satpathy & others (NML and NALCO), India
- Waste Disposal Management in Aluminium Industry by Lu Yi and others, Jingjin Environmental Protection Inc., China and Unitop Multitech India Private Limited, India

5. Innovations in Alumina Refining

- Sustainable Indian Alumina Refinery for the 2020's by V. K. Sood, *HINDALCO* & H. Mahadeven, *ANRAK Aluminium*, *India*
- To Yield or Not to Yield by Andrew Furlong & others, WorleyParsons, Australia
- The Two-stage Precipitation Process Sandy Alumina Practice in Vietnam by Jian Wang & others, SAMI, China
- Unique Automatic Powdery Red Mud Filtration Unit by Mukesh Kumar, Bimalananda Senapati, et.al, Sesa Sterlite Limited, India
- Analysis on the Mixing model of large Precipitator Tank by YANG Zhenrong and others, GAMI, China

6. Developments in Special Alumina and Alumina ceramics:

- Almatis Premium Alumina Based Raw Materials by Sarbapi Mukherjee & others, ALMATIS, India
- Influence of particle size distribution of bimodal reactive alumina on properties of LCC refractory castables by Jerome Kiennemann, *ALTEO*, *France*
- Alumina and Bauxite based wear resistant Ceramics by L. N. Sathpathy, BHEL, India
- Process and Prospects of specialty alumina hydrate by B.K. Satpathy, NALCO, India



7. Technology up gradation & Innovations in Aluminium Smelting:

- Carbothermic Processes to Replace the Hall-Heroult Process by Dr. Yaghoub Sayad-Yaghoubi, Calsmelt Pvt. Ltd, Australia
- SAMI High Capacity Energy Saving Aluminum Reduction Cell Technology Development and Application by Zhou Dongfang & others, SAMI, China
- Anode Rodding Shop of Aluminium Smelters by Manfred Beilstein and others, Outotec, Germany
- Simulation of Best Process Condition of Aluminium Electrolysis Pot by Chen Cairong, GAMI, China
- Study of Energy Saving for Large Reduction Cell by Yan Feiya, GAMI, China

8. Future Trends in Alumina & Aluminium Markets:

- Present International Market of Alumina-Aluminium and NALCO's Strategy by Soma Mondal, Director (Commercial) *NALCO, India*
- Global market balances for alumina An outlook to 2023 by Puneet Paliwal, CRU, India

9. Challenges to sustained Aluminium downstream products:

- High purity Aluminium: Technology Challenges by K.Balasubramanian, NFTDC, India
- Aluminium The future metal by Lovkesh Bhatia, HINDALCO, India
- Empowerment of Knowledge to Cast Aerospace Alloys the ALMEX Way by Ravi Tilak, ALMEX, USA
- Applications of Aluminium Extrusions by Kshemendra Nath, Sapa Extrusions, India
- Indigenization of aluminium alloys for space applications: Challenges, current status and visions by Koshi M. George, VSSC (ISRO), India
- Wrought aluminium alloys produced in Indian Industries for defence applications by A.K.Mukhopadhyay, *DMRL* (*DRDO*), *India*
- Aluminium Roll Products at BALCO by Ajay Kumar Sharma, Bharat Aluminium Comapany Ltd., India
- CEL a "one-stop solution" for extrusions for Defence, Engineering and Industrial Applications by J. K. Malpani, *Century Extrusions Ltd., India*
- Effect of heat treatment on the paint-bake response and formability of 6xxx automotive sheet alloys by Hao Zhong, *China Nonferrous Metals Processing Technology Co., Ltd., China*
- R&D Characteristic and Application in Aluminum Processing Industry of Domestic Two-stand Tandem Cold Mill by CHEN Chun-can & others, *China Nonferrous Metals Processing Technology Co., China*
- Upgrade and optimization of oil-mist recovery system for aluminum plate, strip and foil rolling mill by Wei Dongfeng and others, *China Nonferrous Metals Processing Technology Co., China*.

10. Analytical techniques in Aluminium Industry:

• Mineralogy of Indian Bauxite and Red mud (Bauxite Residue) and its Implication in Optimizing Alumina Production Process by Istvan Sajo and *JNARDDC*, *Hungary & India*

11. Environment Management & Sustainable Developments :

- Impacts of Mining on Ecological Sustainability Case study: Baphlimali Bauxite Mines of Utkal Lumina International Ltd. by BRK Padhi, *Utkal Alumina International Ltd.*, *India*
- Environmentally Sustainable Development of Aluminium Industry: Status and Future Challenges by S. K. Goyal, *NEERI*, *India*

IMPORTANT DATES

DEADLINES FOR FINAL MANUSCRIPT AND POWER POINT PRESENTATION

- Final manuscript in English- 31st October 2014
- ➤ Power Point Presentations in English 15th November 2014



CONFERENCE FEES

Delegate Fee

Details of fees for delegates, paper presenters and students/research scholars are given below. Delegates from India can pay in INR.

| Sr. No. | Participants | Organizational Fee | | |
|---------|---------------------------|--------------------|--------|--|
| | | US\$ | INR | |
| 1 | General Delegates | 300 | 15,000 | |
| 2 | Paper Presenters | 150 | 7,500 | |
| 3 | Students/Research scholar | 100 | 5,000 | |
| 4 | Accompanying Spouse | 100 | 5,000 | |

Delegate fee includes conference material, lunches, dinners and tea/coffee.

Advertising & Sponsorship

Advertisements

A Souvenir will be brought out containing company profiles and advertisements. The tariff is as follows:

| Sr. No. | Advertisement in | Fee | | |
|---------|---|-----------|--------|--|
| | Conference souvenir | US\$ | INR | |
| 1 | Back Page Cover (Colored) | 1800 | 90,000 | |
| 2 | Front inside Page (Colored) | 1200 | 60,000 | |
| 3 | Back inside Page (Colored) | 1000 | 50,000 | |
| 4 | Full Page (Colored) | 800 | 40,000 | |
| 5 | Half Page (Colored) | 500 | 20,000 | |
| 6 | Black & White (Full Page) | 500 | 20,000 | |
| 7 | Special Insertion of Bookmark (On first come first basis) | 300 | 15,000 | |
| 8 | Special Insertion of Folded pages (2 pages) | Extra 50% | | |



Sponsorship

By sponsoring this IBAAS International Event, you will raise your company profile and gain unparalleled access to the key decision makers in this industry. You can choose from various sponsorship packages as shown below:

| S. No. | Conference Sponsors | Fee | | Free Delegates |
|--------|----------------------------|--------|---------|----------------|
| | | US\$ | INR | |
| 1. | Platinum Sponsor | 16,000 | 800,000 | 10 |
| 2. | Gold Sponsor | 12,000 | 600,000 | 8 |
| 3. | Sponsor | 8000 | 400,000 | 6 |
| 4. | Co-sponsor | 6000 | 300,000 | 4 |
| 5. | Supporter | 4000 | 200,000 | 2 |

Organizers of conference will provide following benefits to sponsors and supporters:

- Place logo of sponsoring and supporting company on the IBAAS webpage (http://www.ibaas.info/) with a link.
- Update the conference circular highlighting the sponsorship and support of company and distribute this to all the aluminium companies.
- Sponsoring company profile will be published in the conference souvenir.
- In all the publications of IBAAS, name of sponsoring company will be highlighted.
- Sponsoring company can make special presentation during the 3 days conference and time be allotted according to category.
- The name of company will be projected in all the banners and projections displayed during the conference.
- Sponsoring company will be allowed to send free delegates as shown above.



Exhibition and Payment details

Exhibition

At the venue of IBAAS symposium, exhibition is being organized showcasing the developments of aluminium industry in India and world over. Fully furnished aluminium framed stalls of 2mx2mx2m size would be available for interested companies.

More than 200 delegates from India and abroad are expected to participate in this International mega event. The tariff for exhibition stall is as follows:

| Sr. No | Exhibition module 2mx2mx2m | Tariff for 3 days symposium | | |
|-----------|----------------------------|-----------------------------|---------|--|
| | | US\$ | INR | |
| 1 | 1 stalls | 4000 | 200,000 | |
| 2 | 2 stalls | 6000 | 300,000 | |
| 3 | 3 stalls | 8000 | 400,000 | |

Mode of Payment

You can pay your delegate fee, sponsorship, advertisement and exhibition fee in one of the following ways:

Payment to the Bank account of IBAAS, India:

- By wire / Internet transfer to IBAAS Current Account No. **2162002100010474** of Punjab National Bank (Bharatnagar branch Nagpur-440001, branch code 2162), SWIFT CODE: PUNBINBBNKW, RTGS/NEFT IFS code: PUNB0216200
- By multicity cheque or demand draft in the name of "IBAAS" and send it by post to IBAAS, Row House A/5, Rajat Utsav II Kachimet, Amravati Road, Nagpur 440033, India.

Receipt of payment will be provided by e-mail and hardcopy will be sent by post/courier. The Permanent Account Number (PAN) of IBAAS for tax purpose is **AAAAI5838B**. The account number and details will be provided in the next circular and IBAAS website http://www.ibaas.info/

Please confirm your payment on e-mail <u>info@ibaas.info</u> and contact us for further queries on payments.



CONFERENCE INFORMATION

Venue & Accommodation

The venue for this conference and exhibition is Hotel **Novotel Visakhapatnam Varun Beach**, **Visakhapatnam**, India. The contact person and address of hotel are as follows:



Mr. Raj Kiran | Asst. Sales Manager |
Novotel Visakhapatnam Varun Beach, Beach Road, Visakhapatnam,
Andhra Pradesh I Pin -530002
□+91 891 2822222 | Fax +91 891 2822244 | Direct Line: +91 (891) 2866627 | □+91 7799884051
□ H7535-SL2@accor.com | novotel.com | accorhotels.com |

Special tariff in INR applicable exclusively for IBAAS Event

| Type of Room | Single Room Discounted Tariff | Double Room Discounted Tariff |
|------------------------|----------------------------------|----------------------------------|
| Superior | 5000 | 6000 |
| Premier | 7500 | 8500 |
| Executive Suite | 13000 | 13000 |

The above rates are inclusive of the following:

- The above rates include Complimentary Buffet Breakfast at the Square.
- Complimentary Wi-Fi base speed @256kbps.
- The above rates are on single/ double occupancy and are on per room per night basis.
- The above rates are Inclusive of all applicable Government Taxes.

Delegates can coordinate with the IBAAS (<u>info@ibaas.info</u>) to book the above hotel. In case of direct booking, they should inform us.

Accommodation

There are several hotels in Visakhapatnam and details will be provided to interested delegates.

Language

The language of the Symposium is English. Papers will be published in English in the Proceedings volume.

Invitation Letter

If requested by participants, official invitation letter will be provided by IBAAS office.

Proceedings

Selected papers from those accepted for presentation will be published in the form of PROCEEDINGS, which will be available at the time of the Symposium.

Mine & Plant Visits

Interested delegates and companies can approach individual bauxite mine, alumina refinery, aluminium smelters and R&D centre in India for a pre and post conference visit. IBAAS can facilitate such visits and meetings. Sesa Sterlite Alumina Refinery of Lanjigarh and JNARRDC, Nagpur invite IBAAS-CHALIECO 2014 delegates to visit their facilities.



Contact Information

IBAAS Office: International Bauxite, Alumina & Aluminium Society (IBAAS), India

Office E-mail: info@ibaas.info Contact Person: Ms. Mohini Cell No. +91 9860240380

Conference Convenor: Dr. Ashok Nandi

E-mail: <u>ashok.nandi@ibaas.info</u> Cell No. +91 9823015772

Coordinator: Mr. R. N. Goyal Cell No.: +91 9423103283 Web site: http://www.ibaas.info/

Chairman, Technical Committee:

Dr. A. K. Mukhopadhyay, Outstanding Scientist, Defence Metallurgical Research Laboratory (DMRL),

Hyderabad

Email: akm@dmrl.drdo.in; ashim_mukhopadhyay@yahoo.com

Cell No. +91 9908116549

CHALIECO Office:

Contact Persons:

Mr. Niu Heng, Senior General Manager International Business

China Aluminum International Engineering Corporation Limited

Address: Building C, 99 Xingshikou Road, Haidian District Beijing, P. R. China, 100093.

Tel: +86 10 8240 6618 Fax: +86 10 8240 6870 Mobile: +86 139 0102 9710

E-mail: heng_niu@chalieco.com.cn

JNARDDC Office:

Jawaharlal Nehru Aluminium research development and Design Centre (JNARDDC), India

Contact Person: Mr. M J Chaddha

Cell No.: 07104 222742; 07104 220017 Ext 220

E-mail: mjchaddha@jnarddc.gov.in; mmukeshchaddha1@yahoo.com

You are requested to send all materials related to Symposium "IBAAS-2014", to the e-mail address **info@ibaas.info** Your participation in the Symposium will be highly appreciated.

Organizing Committee
IBAAS - CHALIECO - JNARDDC



IBAAS 2014 Symposium Technological Improvements & Market Developments in Aluminium Industry REGISTRATION FORM

| Title-(Prof/Dr/Mr/Mrs/M | s) | | | | |
|------------------------------------|----------------|-----|---------|----------|------------|
| Name of the Participan | t | | | | |
| Position | | | | | |
| Name of the Organizati | on/Institute / | | | | |
| Company / Industry | | | | | |
| | | | | | |
| | | | | | |
| Address | | | | | |
| | | | | | |
| | | | | | |
| City | | | State | | |
| Zip Code | | | Country | | |
| Email | | | | | |
| Telephone | | | | | |
| | | | | | |
| Mobile number | | | | | |
| | | | | | |
| Require Visa Support L | .etter | Yes | | No | |
| Please tick Yes/No | | | | | |
| Paper Detail (For Autho | ors only) | | | | |
| - upor zorum (r or zrumme | | | | | |
| Paper Title | | | | | |
| | | | | | |
| Downsont Dateil | | | | | |
| Payment Detail | Details | | | | |
| Mode of Payment Bank Transfer / | Details | | | | |
| Cheque / DD / Cash | | | | | |
| Olicque / DD / Odoli | | | | | |
| Hotel Accommodation | | | | | |
| notel Accommodation | | | | | |
| Require Hotel | Yes | | | No | |
| • | I | | | <u> </u> | |
| Accommodation Choic | e, if any – | | | | |
| | - | | | | |
| Post Conference Visit: | Please tick, | | | | |
| 161-1 | l v | | | L. | |
| If interested, | Yes | | | No | |
| Date: | l | | | <u> </u> | Signature: |