



तकनीकी पत्रिका विषय-सूची

## **CURRENT CONTENT**

*(Technical Journals)*

*(A Monthly Current Awareness Service from Technical Journals)*

**Vol. 08 No. 09, September, 2024**

The Central Library, IBM, Nagpur is subscribing the technical journals and also receiving them on complimentary basis on various subjects like Geology, Mining, Mineral Economics etc. These Technical Journals make up an important collection of latest scientific information. The library is rendering Reference Service to its users from these technical Journals (Article Indexing is one of them). Central Library, IBM provides Current Content Service from these technical journals in the name of "GEM" since 2006 on half yearly basis in print form. To expand this service to the IBM Offices all over India i.e. H.Q., Zonal & Regional Offices and to take a call of time, the Controller General, IBM desired to make this service online on monthly basis. The library staff made efforts to make it successful. This is the 9<sup>th</sup> issue of Volume-8 for this service named "तकनीकी पत्रिका विषय - सूची" (Current Content- A Monthly Current Awareness Service from Technical Journals) Vol. 08 No.09, September, 2024.

It will be highly appreciated if the valuable feedback is reciprocated. If some article as per content list is found to be of use by the reader the same may be requested and the library will send the scanned copy of the article to the interested reader.

**Mrs R S Wakode**  
**Assistant Library & Information Officer**  
**library@ibm.gov.in**  
**0712-2562847**

# I N D E X

<u>S.No</u>	<u>Title</u>	<u>Page No</u>
1)	Down to Earth	3
2)	Iron & Steel Review	4-7
3)	Journal of the Geological Society of India	8-9
4)	Minerals & Metals Review	10
5)	Mining Engineers' Journal	11-12

# Down to Earth, Vol.33 No.02, 1-15 June,2024

## Down To Earth

Founded in 1992 to arm you with knowledge critical to shaping a better world

**FOUNDER EDITOR** Anil Agarwal  
**EDITOR** Sunita Narain  
**MANAGING EDITOR** Richard Mahapatra  
**CHIEF COPY EDITOR** Snigdha Das  
**ASSOCIATE EDITORS** Aditya Misra, Rajit Sengupta  
**SENIOR CREATIVE DIRECTOR** Ajit Bajaj  
**SUPPLEMENT EDITOR** Souparno Banerjee  
**CHIEF CARTOONIST** Sorit Gupta  
**REPORTING TEAM** Shagun, Akshil Sangomla, Pulaha Roy, Rohini Krishnamurthy, Zumbish, Seema Prasad, Himanshu N  
**SENIOR SUB EDITOR** Dakshini Palicha  
**WEB EDITORS** Rajat Ghai, Preetha Banerjee, Nandita Banerji  
**DESIGN TEAM** Chaitanya Chandan (Art Editor), Ritika Bohra (Assistant Art Editor), Tarun Sehgal (Senior Designer), Yogendra Anand (Illustrator), Vineet Tripathi (Graphic Designer), Shri Krishan  
**PHOTO EDITOR** Vikas Choudhary  
**PRODUCTION** Rakesh Shrivastava, Gundhar Das  
**TECH SUPPORT** Rajendra Rawat, Jaidev Sharma  
**MULTIMEDIA** Joel Michael, Sunny Gauram, Midhun Vijayan, Shreya KA, Prabhat Kumar, Dhruv Parekh  
**INFORMATION AND RESEARCH SUPPORT** Kiran Pandey, Susan Chacko, Madhumita Paul, Sheeja Nair, Lalit Maurya, Dayanidhi Mishra  
**CONSULTING EDITORS** Anumita Roychowdhury, Vibha Varshney

Vol 33, No 2; Total No of Pages: 60

Editorial, subscriptions and advertisements:  
 Society for Environmental Communications,  
 41, Lughlakabad Institutional Area, New Delhi 110 062,  
 Phone: 91-11-40616000, 29955124,  
 29956110, 29956394, 29956399 | Fax: 91-11-29955879,  
 Email: editor@downtoearth.org.in

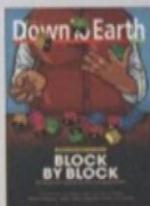
© 2024 Society for Environmental Communications. All rights reserved throughout the world. Reproduction in any manner is prohibited. Printed and published by Richard Mahapatra on behalf of Society for Environmental Communications. Printed at International Print-o-Pac Limited, B-204, 205, Okhla Industrial Area, Phase I,

New Delhi-110020, India, and published at 41, Lughlakabad Institutional Area, New Delhi 110062.

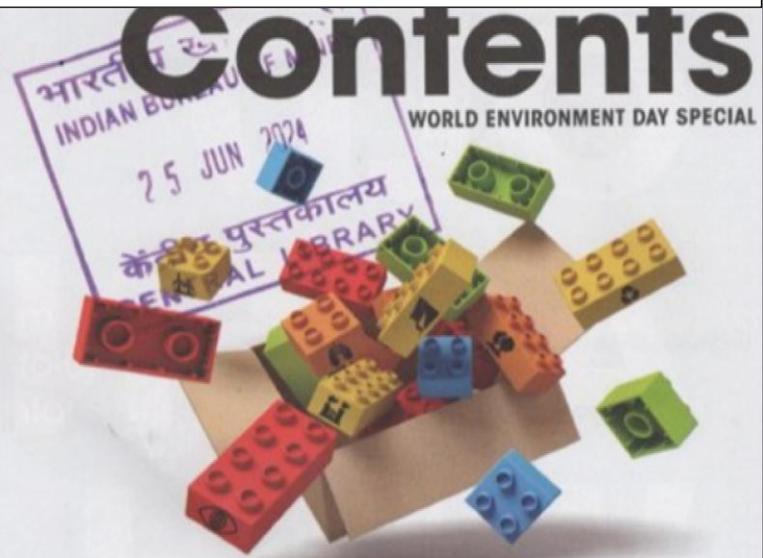
To subscribe, sms 'the Subscribe' to 560770 or visit [www.downtoearth.org.in/subscribe](http://www.downtoearth.org.in/subscribe)

FOR ADVERTISEMENTS: Jyoti Ghosh  
[jghosh@seindia.org](mailto:jghosh@seindia.org)

FOR SUBSCRIPTIONS  
[KCR.Raja.raja@seindia.org](mailto:KCR.Raja.raja@seindia.org)



◀ Cover design: Ajit Bajaj  
 Cover illustration:  
 Yogendra Anand



### AGENDA FOR NEW GOVERNMENT

**08**  
**CLIMATE CHANGE**  
 Align India's economic development with climate realities

**12**  
**RENEWABLE ENERGY**  
 Assess barriers in energy transition, build demand-driven markets

**18**  
**AIR POLLUTION**  
 Strengthen metrics, compliance of National Clean Air Programme

**22**  
**INDUSTRY**  
 Address issues that hamper environmental performance

**28**  
**WATER AND SANITATION**  
 Sustain success of flagship missions, prepare for a warming world

**34**  
**HABITAT**  
 Improve thermal comfort, liveability in cities

**40**  
**WASTE**  
 Disincentivise dumping, invest in behavioural change

**44**  
**BIODIVERSITY**  
 Time to focus on conservation of biological resources

**48**  
**MOBILITY**  
 Need a clean, affordable and efficient public transport

**52**  
**FOOD SYSTEMS**  
 Curtail pesticide misuse, labelling lapses, antibiotic resistance

**58**  
**CIVIL LINES**  
 Make agriculture profitable again to revive rural economy

Down To Earth does not endorse the content of advertisements printed in the magazine. All disputes are subject to the exclusive jurisdiction of competent courts and forums in Delhi/New Delhi only.

# Iron & Steel Review, Vol.68 No.02, July 2024

## Features

**Editor & Publisher:**  
Santosh Mahanti

**Director & Associate Editor:**  
Abhishek Mahanti

**Directors:**  
Sabita Mahanti

**Director & Content Strategist:**  
Kritika Mahanti

**Editorial:**  
Megha Ghosh

**Sales & Marketing:**  
Shyamalendu Banerjee  
Angan Chatterjee  
Sanjana Tiwari

**Design & Layout:**  
Dipak Adhikari  
Sambaran Karmakar

**Editorial & Corporate Office:**  
Merlin Links, Block 5E/5F, 5<sup>th</sup> Floor  
166B, S. P. Mukherjee Road  
Kolkata - 700 026  
Phone: 91-6292241782/6292241783/  
033-2463 8088  
Fax: 91-033-2465-3790  
E-mail: [contact@isrinfomedia.in](mailto:contact@isrinfomedia.in)  
Website: [www.isrinfomedia.com](http://www.isrinfomedia.com)

**Registered Office:**  
10, Chowringhee Road  
Kolkata - 700 013

### Subscription Rate

**Domestic**  
**Print Copy**  
₹ 12,000 (Yearly)  
₹ 1,000 (Single Copy)  
**Digital Copy**  
₹ 8,500 (Yearly)

**Overseas**  
**Print Copy**  
\$ 1,600 (Yearly)  
€ 1,250 (Yearly)  
**Digital Copy**  
\$ 800 (Yearly)  
€ 500 (Yearly)

- Shipping Charge ₹ 1200 (Yearly)
- 5% GST on Print Advertisement as Applicable
- 18% GST on Digital Advertisement as Applicable

Owned & Printed by Santosh Mahanti at M/s. Kalpana Offset Private Limited 123, Tarak Pramanick Road, Kolkata 700 006 and published by him from 10, Chowringhee Road Kolkata - 700 013, India.

*Reproduction of matter published here, in whole or in parts, is prohibited without written permission from the publisher.*

*The publisher and printer do not accept any responsibility for statements, data and opinions expressed by the author.*



Cover Courtesy:  
Hindalco



Scan QR Code for  
Visiting Our Website

Articles/write-ups  
may be forwarded to:  
[contact@isrinfomedia.in](mailto:contact@isrinfomedia.in)

## Cover Story

**20**

"At Hindalco, we remain focused on continuous innovation to deliver value to our customers"



Saurabh Khedekar  
President and CEO  
Specialty Aluminia  
Hindalco

## National Trends

**28**

Steel Secretary Visits NMDC's New R&D Centre

## Global Trends

**36**

Siam Yamato Steel Uses an AI Model-based Energy Management Solution from SMS group

## Focus

**52**

World's Longest Suspension Bridge Will Connect Europe and Asia

## Stainless & Special Steel

**64**

Harnessing Green Hydrogen: Revolutionizing Bright Annealing Furnaces at Jindal Stainless

## Company News

**66**

Safe Braking Solution for Heavy-Duty Cranes

## Steel Market

**72**

Iron & Steel Performance for May 2024

## Steel Market & Performance

**90**

Performance of the Indian Steel Industry in April-June, 2024-25



# Iron & Steel Review, Vol.68 No.02, July 2024

## Features



## Advertisers' Index

### Steel Technology

**92**

The Smelter for Low-Grade DRI Melting for a Low-Carbon Steel Industry

### Refractory

**104**

Saint-Gobain's Refractory Solutions for Iron Making

### Pre-Show Report

**127**

The Inaugural Technical Session of GCECT Alumni Association, Maneuvering New Opportunities and Challenges

### Statistics

**130**

World Crude Steel Production – May 2024

Indian Steel Market & Prices – April-June, 2024-25

भारतीय खान एवं  
INDIAN BUREAU OF MIN.

17 SEP 2024

केंद्रीय पुस्तकालय  
CENTRAL LIBRARY

### A

Atomat Group	39
Anjas Steel Private Limited	53
Arcam Engineering (P) Limited	88-89

### C

Cyrus Vibration Machines India Private Limited	16
Creative Carbon Pvt. Ltd.	79
Cosmo Powertech Pvt. Ltd.	33

### D

Dalmia Magnesite Corporation	51
Daniek & C Spa	48-49

### E

Electrotherm (India) Limited	17, 139
EIBC Private Limited	62-63
Eastern Equipment & Engineers P. Ltd.	77
Elektromag Devices Pvt. Ltd.	83

### H

Hindako	Cover, 111
Henan Iron and Steel Yuxing Metallurgical Energy Engineering Co., Ltd.	14-15
Holleck India	29

### I

Indiana Machine Tools	12
ISR Seminar (Indian Steel Conference)	18

### J

JSW Steel	7
Jindal Steel & Power Ltd.	55

### K

Kathuria Rollmill Pvt. Ltd.	26-27
KELK	35
K I Transpower Pvt. Ltd.	73

### M

Megatherm Induction Ltd.	Gatefold Cover
Mahakoshal Refractories Pvt. Ltd.	117
Maxes Motion Controls Pvt. Ltd.	87
Mipalloy Nomura Plating Company LLP	Back Cover

### N

NMDC Limited	37
--------------	----

### O

Orind Special Refractories Pvt. Ltd.	115
--------------------------------------	-----

### P

Primetals Technologies	31
Pyrotech Workspace Solutions	43
P P Rolling Mills MFG Co Pvt. Ltd.	56-57, 69, 129

### R

Ringspan	67
Rana Udyog Private Limited	74-75
R. Singh & Associates (P) Ltd.	85
Refratechnik	103

### S

SMS group	Second Cover
Steels Industries Private Limited	10-11
Shreeji Coke & Energy Private Limited	13
Seminar (MMMM 2024)	34
SEW Eurodrive	45
Subscription Form	46
Shyam Steel Industries Limited	59
SMT Machines India Limited	80-81
Sarvesh Refractories Pvt. Ltd.	109
Sino-Global	113
Samaha India Refractories Pvt. Ltd.	120-121
Seminar (Tube India 2024)	135
Seminar (MET & HTS 2024)	136
Seminar (GCECT 2024)	137

### T

TH Company	9
Transformers & Rectifiers (India) Ltd.	19
TVO Coke Oven Consultants Private Limited	133
TRI, Krosaki Refractories Limited	107
Totale Global Pvt. Ltd.	123

### V

Yezzani	41
---------	----

### Y

Yogi Ji Digi	Third Cover
--------------	-------------

### Z

Zhuzhou Cemented Carbide Works Import & Export Company	131
--	-----

# Iron & Steel Review, Vol.68 No.03, August 2024

## Features

**Editor & Publisher:**  
Santosh Mahanti

**Director & Associate Editor:**  
Abhishek Mahanti

**Directors:**  
Sabita Mahanti

**Director & Content Strategist:**  
Kritika Mahanti

**Editorial:**  
Megha Ghosh

**Sales & Marketing:**  
Shyamalendu Banerjee  
Angan Chatterjee  
Sanjana Tiwari

**Design & Layout:**  
Dipak Adhikari  
Sambaran Karmakar

**Editorial & Corporate Office:**  
Merlin Links, Block 5E/5F, 5<sup>th</sup> Floor  
166B, S. P. Mukherjee Road  
Kolkata - 700 026  
Phone: 91-6292241782/6292241783/  
033-2463 8088  
Fax: 91-033-2465-3790  
E-mail: contact@isrinfolmedia.in  
Website: www.isrinfolmedia.com

**Registered Office:**  
10, Chowringhee Road  
Kolkata - 700 013

### Subscription Rate

#### Domestic

**Print Copy**  
₹ 12,000 (Yearly)  
₹ 1,000 (Single Copy)

**Digital Copy**  
₹ 8,500 (Yearly)

#### Overseas

**Print Copy**  
\$ 1,600 (Yearly)  
€ 1,250 (Yearly)

**Digital Copy**  
\$ 800 (Yearly)  
€ 500 (Yearly)

- Shipping Charge ₹ 1200 (Yearly)
- 5% GST on Print Advertisement as Applicable
- 18% GST on Digital Advertisement as Applicable

Owned & Printed by Santosh Mahanti at M/s. Kalpana Offset Private Limited 123, Tarak Pramanick Road, Kolkata 700 006 and published by him from 10, Chowringhee Road Kolkata - 700 013, India.

*Reproduction of matter published here, in whole or in parts, is prohibited without written permission from the publisher.*

*The publisher and printer do not accept any responsibility for statements, data and opinions expressed by the author.*



Cover Courtesy:  
Shinagawa Refractories  
Co., Ltd.



Scan QR Code for  
Visiting Our Website

Articles/write-ups  
may be forwarded to:  
contact@isrinfolmedia.in

INDIAN INSTITUTE OF MINES  
LIBRARY  
27 SEP 2024

### Special Feature

**18**  
Challenges for the Indian  
Steel Industry

### National Trends

**28**  
Tata Steel and Welspun  
Corp Develop Pipes for Pure  
Hydrogen Transportation

### Global Trends

**36**  
Borcelik Endorses Danieli  
with Order for Cold-strip  
Complex

### Focus

**62**  
Energiron, DigiMeiter, MIDA  
and QSP are the Unique  
Technologies for Lowering  
CO<sub>2</sub> Emissions

### Company News

**72**  
NMDC: Leading the Way in  
Research & Development

### Steel Market

**76**  
Iron & Steel Performance for  
June 2024

### Steel Market & Performance

**90**  
Performance of the Indian  
Steel Industry in April-July,  
2024-25

### Steel Technology

**92**  
A Friend in Need – a Friend  
Indeed: Successful AI  
Applications in Ironmaking by  
a Transparency Approach



# Iron & Steel Review, Vol.68 No.03, August 2024

## Features



## Advertisers' Index

### Refractory

**118**

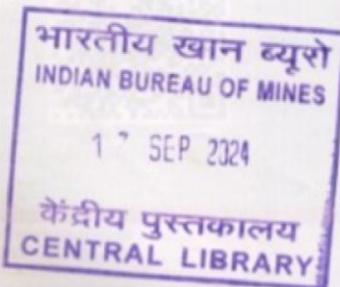
The Development of Innovative Manufacturing Process for Sliding Nozzle Plate SN Plate Refractory Automation Process to Minimize Quality Deviations

### Statistics

**158**

World Crude Steel Production – June 2024

Indian Steel Market & Prices – April-July, 2024-25



<b>A</b>			
Atomat Group	35	NBC Bearings	63
Arjas Steel Private Limited	43	Nedmag	151
APL Apollo Coated Steel	59	<b>O</b>	
Alteo	123	Orind Special Refractories Pvt. Ltd.	149
<b>C</b>		<b>P</b>	
Cyrus Vibration Machines India Private Limited	14	Primetals Technologies	21
Creative Carbon Pvt. Ltd.	77	P P Rolling Mills MFG Co Pvt. Ltd.	46-47, 83, 157
Cosmo Powertech Pvt. Ltd.	57	Puyang Refractories Group Co., Ltd.	137
Champion Ceramics Pvt. Ltd.	75	Premier Refractories of India Pvt. Ltd.	139
<b>D</b>		<b>R</b>	
Dalmia Magnesite Corporation	27	Rana Udyog Private Limited	78-79
Danieli & C Spa	38-39	R. Singh & Associates (P) Ltd.	89
Dev Technofab Limited	71	Refratechnik	25
<b>E</b>		RHI Magnesita	121
Electrotherm (India) Limited	15, 165	Raghuvanshi Refractories	143
EMG Automation India Private Ltd.	41	<b>S</b>	
EIBC Private Limited	54-55	Shinagawa Refractories Co., Ltd.	Cover
Eastern Equipment & Engineers P. Ltd.	51	SMS group	19
Elektromag Devices Pvt. Ltd.	81	Steelfo Industries Private Limited	8-9
Elkem	129	Shreeji Coke & Energy Private Limited	11
<b>H</b>		Schaeffler	23
Hindalco	Second Cover	SEW Eurodrive	49
Henan Iron and Steel Yuxing Metallurgical Energy Engineering Co., Ltd.	12-13	Subscription Form	34
H&K Rolling Mill Engineers Pvt. Ltd.	161	Sanvesh Refractories Pvt. Ltd.	Back Cover
<b>I</b>		Sino-Global	125
Indiana Machine Tools	10	Samwha India Refractories Pvt. Ltd.	134-135
imn electronic India Private Limited	16	Seminar (IM-ATM 2024)	74
ISR Seminar (Indian Steel Conference)	107	Seminar (Middle East Iron & Steel 2024)	103
IPGI	117	Seminar (Tube India 2024)	163
<b>J</b>		<b>T</b>	
JSW Steel	5	TH Company	7
Jindal Steel & Power	31	Transformers & Rectifiers (India) Ltd.	17
<b>K</b>		TVQ Coke Oven Consultants Private Limited	101
KELK	33	Totale Global Pvt. Ltd.	147
K I Transpower Pvt. Ltd.	53	<b>V</b>	
Khemka Refractories Private Limited	119	Vezzani	37
<b>M</b>		Welco	127
Maxis Motion Controls Pvt. Ltd.	65	Vishva Vishal Refractory Limited	131
Mipalloy Nomura Plating Company LLP	61	Walbus Minertech	145
MACO Group of Companies	86-87	<b>Y</b>	
Munugappa Morgan Thermal Ceramics Limited	141	Yogi Ji Digi	Third Cover
<b>N</b>		<b>Z</b>	
NMDC Limited	29	Zhuzhou Cemented Carbide Works Import & Export Company	159

Journal of the Geological Society of India, Vol.100 No.09,  
September 2024

of  
**THE GEOLOGICAL SOCIETY OF INDIA**

(Abstracted/Indexed in AGI's Bibliography and Index of Geology, Chemical Abstracts, Current Contents,  
GEOBASE, GGeoRef, Mineralogical Abstracts, GeoArchive, Thomson ISI database (SCIE, CC/PC & ES))

Vol. 100

SEPTEMBER 2024

भारतीय खान ब्यूरो No. 9  
INDIAN BUREAU OF MINES  
17 SEP 2024  
केंद्रीय पुस्तकालय  
CENTRAL LIBRARY

**CONTENTS**

**EDITORIAL**

**Mineral Intensive Energy Transition: Challenges and Way Forward.**

G.M. BHAT ..... 1223

**RESEARCH ARTICLES**

- Geochemical Characterization and Constraints on Provenance, Tectonic setting and Paleoweathering of the Miocene Bhuban Sandstone Exposed in Sakhan Anticline, Tripura Fold Belt, Surma Basin, India.**  
KASHYAP BORGOHAIN and RANJAN KUMAR SARMAH ..... 1228
- A ~957 Ma Metamorphism in the Mesoarchaean Hindoli Group Supracrustal Rocks from the Jahazpur Shear Zone, East Rajasthan (India): Constraints from Sm-Nd Dating and Phase Equilibria Modeling.**  
GUPTA, S., SAHA, L., ALFIMOVA, N.A., BOGOMOLOV, E.S., BHATTACHARYA, A., BEHERA, S., PRAKASH, A. and SHrivASTAVA, A.K. .... 1241
- A New Find of Anorthoclase Crystals-lined Vug in a Deep-sea Basalt, Central Indian Ocean Basin.**  
SRIDHAR D. IYER, ANKEETA AMONKAR, NIYATI G. KALANGUTKAR and PRANAB DAS ..... 1257
- The Palaeo-Productivity Signals Chronicled from the Buxa Formation, North-East Lesser Himalaya, India.**  
SHAMIM AHMAD, ARIF H. ANSARI, MUKUND SHARMA and S.K. PANDEY ..... 1263
- A Critical Review on Static and Dynamic Performance of Coal Mine Overburden Dump Slopes: Present Status and Way Forward.**  
MADHUMITA MOHANTY, RAJIB SARKAR and SARAT KUMAR DAS ..... 1271
- Earth Observation Data Utilisation for Rock Phosphate Exploration in Jhabua, Madhya Pradesh, India.**  
UDAY KUMAR GHOSH, ARINDAM GUHA, E N DHANAMIAYA RAO, SUPARN PATHAK, RATNAKAR BHAIKAL and V. AMBILI ..... 1287
- Provenance, Intensity of Weathering, and Economic Potential of Placer-bearing Sediments on the Shelf off Quilon, Southwestern Coast, India.**  
SAJU VARGHESE, REMYA, C., SMITHA JOSEPH, RAJANEESH NARAYAN, P.R. and BASAB MUKHOPADHAYAY ..... 1299
- New Uranium-lead (U-Pb) Zircon Geochronology of Sholayar Alkaline Syenite Complex, Kerala: Significance of Cryogenian Magmatism from the Southern Granulite Terrane of the Indian Shield.**  
MOUMITA CHOWDHURY, JYOTISANKAR RAY, J.K. TOMSON, DEBALEENA SARKAR, SURESH C. PATEL, RAJEEV KUMAR, PRATIK MUKHERJEE, SOUMILI SAHOO and CHRISTIAN KOEBERL ..... 1311
- Strategies for Sustainable Mine Reclamation: Case Study of the Meghahatuburu Iron Ore Mine.**  
MAMTA MURMU and SATYABRATA BEHERA ..... 1320

1221

Journal of the Geological Society of India, Vol.100 No.09,  
September 2024

Computational Modelling of 2004 Off West Coast of Sumatra Earthquake-Tsunami Wave Propagation  
Using Two-Dimensional Cellular Automata in the Eastern Indian Coast.  
E. SYED MOHAMED, M. YASMIN REGINA and S. SYED ABDUL SYED ..... 1331

Improvement of Fluidity and Long-term Strength of Cemented Paste Backfill with Low Calcium Fly-ash.  
MINGQING HUANG, QIWEI ZHENG, QINGLING LIU and ZHONG GAO ..... 1338

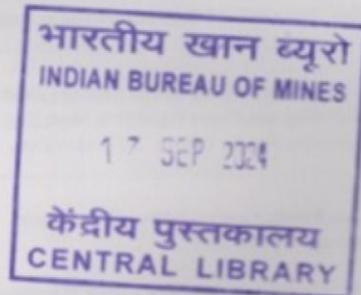
Neoproterozoic Ridge Subduction Beneath South China Craton: TTG Suites of Kangding Complex in  
Western Yangtze Block and its Geochemistry Characteristics.  
AWEI MARIA, MINGCHUN ZHANG, YANLONG LI, NIUBEN YU and XIAOCHUAN XU ..... 1347

NEWS AND NOTES

Award of the Jubilee Medal "300 years of the Russian Academy of Sciences" to Prof. Harsh Kumar Gupta.  
K.V. KRISHNAMURTHY and N. RAJENDRAN ..... 1359

India's Biogeochemical Potential to Feed the Country and Stabilize the Climate.  
ISHFAQ AHMAD MIR ..... 1360

Hands-on Training on Groundwater Modelling using FEFLOW.  
RAJCY, M.C., PRIJU, C.P., MANOJ P SAMUEL and ABHILASH AJAYKUMAR ..... 1362



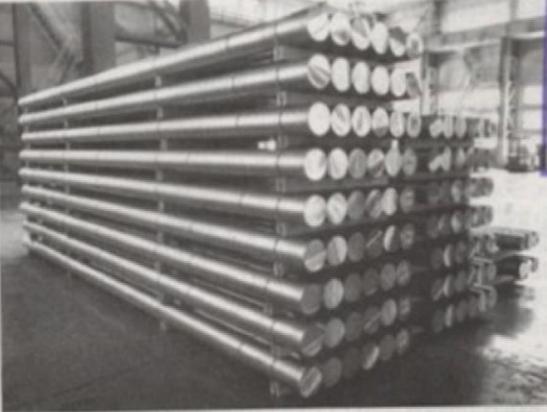
Cover

(A) General tectonic map of peninsular India (modified after Kumar et al., 2019) showing the distribution of Archaean cratons and Proterozoic mobile belts. (B) Geological map of Aravalli-Delhi Fold Belt (modified after Roy and Jhakar, 2002), NW India showing Archaean and Proterozoic age litho-units and shear zones transecting them. For details see pages 1241-1256.

ADDRESS OF EDITOR

All papers intended for publication and also related correspondence should be addressed to:  
G.M. Bhat, Editor-in-Chief, Department of Geology, University of Jammu, Jammu - 180 006, India.  
Email: bhatgm@jugaa.com; Editor\_JGSI@geosocindia.org; Mobile: 91-9419200120.  
Website: <https://www.gepsocindia.org>

**C**ontents



**FOCUS ON ALUMINIUM**

**05 Market Reports**

**23 Perspective**  
How to conserve the bauxite resources?

**33 Policy View**  
India to take decisive steps to achieve sustainability goals; duty on aluminium scrap should be zero: MRAI  
Royalty on mining rights is not a tax  
DGTR proposes up to \$577/t duty on Al frames for solar panels from China

**40 In Conversation**  
Driving sustainability and innovation in the aluminium industry

**42 Aluminium**  
India's ambitious infra projects to spur demand for secondary aluminium  
Indian primary aluminium inds evolving for a bright future

**48 Raw Material**  
Aluminium bauxite mining in India: Current scenario, challenges, and future prospects

**53 Applications**  
Indian aluminium extrusion market set to soar to \$2.5 bn by 2027

**57 Sustainability**  
Aluminium industry reports decline in greenhouse gas emissions

**58 Spotlight**  
Hindalco well geared to meet country's varied aluminium needs

**60 Product Profile**  
ITI-1600 high-precision thickness gage  
New generation technology portable digital hardness tester - ITI-130

**64 Events**  
The curtains draw on the 29th CRU World Aluminium Conference  
VAL, NITI Aayog host strategic session on red mud utilization

**66 Statistics**



Minerals & Metals Review - August 2024 □ 4

# Mining Engineers' Journal

Official Publication of  
Mining Engineers' Association of India



Vol. 26

No. 1

MONTHLY

August - 2024



**President**  
S.N. Mathur

**Vice President - I**  
D.B. Sundara Ramam

**Vice President - II**  
Dhananjaya G. Reddy

**Vice President - III**  
Laxman Singh Shekhawat

**Secretary General**  
M. Narsaiah

**Jt. Secretary cum. Treasurer**  
B. Sahoo

**Ex-officio Council Members**  
K. Madhusudhana, Sanjay Kumar Pattnaik

**Council Members (Elected)**  
Amish Kumar Makadiya; A.K. Garg; Dr. T.N. Venugopal; Cyriac Joseph; Rachappa M Saradagi; A Avudaiyappan; Kumar Mohan Singh; Ravi Chandran Raj; Mohan Nilaram Rahangdale; Santosh Kumar Adhikari; Ankan Mitra; B.L. Kotriwala; P.C. Bakliwal; S.S. Rathore; S.K. Vashisth; P.V. Krishnaiah Yadav; G.R. Magesh; M. Palanikumaresan; Sabyasachi Mohanty; R.S. Raghuvanshi; Sunil Kumar Singh; K. Prabhakara Reddy; Dr. Kripamoy Sarkar; B. Surender Mohan; Mittapally Satish Kumar; K. Venkataramana; Dr. P.C. Purohit; Prem Raj Dave; Bipin Kumar Giri; Ajay Kumar Goyal

**Representatives of Life Institutional Members**  
Mirza Mohammad Abdulla (MDIL); Vinay Kumar (NMDC); Venkateshwar Reddy (SCCL); Dr. H.Y. Desai (MSPL); L. Kulshreshtha (GMDC)

**Nominated Members**  
Prof. Sushil Bhandari; Deepak Vidyarthi; V. Laxminarayana; Gajula Lakshminarayana; K. Laxminarayana

**Co-opted Members**  
Prof. B.B. Dhar; B.R.V. Susheel Kumar; L.S. Shekhawat; Ajay Kumar Jain; A.B. Panigrahi

**Special invitees**  
A.R. Vijay Singh, Dr. N.K. Nanda, Dr. Abani Ranjan Samal

**Permanent Invitees**  
All former Presidents, Hony. Secretaries/ Secretary Generals

**Editor MEJ**  
Dr P.V. Rao

## this issue contains...

President's Message	5
Editor's Desk	7
News from the Mineral World	9
Human Error and Its Impact on Mining Accidents: An Analytical Study - Suman Kanjilal and Dr S C Jain	13
MEAI News	23
MEAI 4 <sup>th</sup> Council Meeting	33
Conferences, Seminars, Workshops etc.	42

Correspondence Address

### MEAI National Headquarters

Contact: **Secretary General,**  
**Mining Engineers' Association of India**  
F-608 & 609, Raghavaratna Towers, 'A' Block, VI Floor,  
Chirag Ali Lane, Abids, Hyderabad - 500 001.

Ph.: 040-66339625, 23200510

E-mail : meal1957@gmail.com

website : www.meai.org

The Views expressed by the authors in these pages are not necessarily those of Publisher / Editor / MEAI. Reproduction in whole or in part is strictly prohibited without written permission from the publisher.

# Mining Engineers' Journal

Official Publication of  
Mining Engineers' Association of India



Vol. 26

No. 2

MONTHLY

September - 2024



**President**  
S.N. Mathur

**Vice President - I** D.B. Sundara Ramam  
**Vice President - II** Dhananjaya G. Reddy  
**Vice President - III** Laxman Singh Shekhawat

**Secretary General** M. Narsaiah  
**Jt. Secretary cum. Treasurer** B. Sahoo

**Ex-officio Council Members**  
K. Madhusudhana, Sanjay Kumar Pattnaik

**Council Members (Elected)**  
Amish Kumar Makadiya; A.K. Garg; Dr. T.N. Venugopal; Cyriac Joseph; Rachappa M Saradagi; A Avudaiyappan; Kumar Mohan Singh; Ravi Chandran Raj; Mohan Nilaram Rahangdale; Santosh Kumar Adhikari; Ankan Mitra; B.L. Kotriwala; P.C. Bakliwal; S.S. Rathore; S.K. Vashisth; P.V. Krishnaiah Yadav; G.R. Magesh; M. Palanikumaresan; Sabyasachi Mohanty; R.S. Raghuvanshi; Sunil Kumar Singh; K. Prabhakara Reddy; Dr. Kripamoy Sarkar; B. Surender Mohan; Mittapally Satish Kumar; K. Venkataramana; Dr. P.C. Purohit; Prem Raj Dave; Bipin Kumar Giri; Ajay Kumar Goyal

**Representatives of Life Institutional Members**  
Mirza Mohammad Abdulla (MOIL); Vinay Kumar (NMDC); Venkateshwar Reddy (SCCL); Dr. H.Y. Desai (MSPL); L. Kulshreshtha (GMDC)

**Nominated Members**  
Prof. Sushil Bhandari; Deepak Vidyarthi; V. Laxminarayana; Gajula Lakshminarayana; K. Laxminarayana

**Co-opted Members**  
Prof. B.B. Dhar; B.R.V. Susheel Kumar; L.S. Shekhawat; Ajay Kumar Jain; A.B. Panigrahi

**Special invitees**  
A.R. Vijay Singh, Dr. N.K. Nanda, Dr. Abani Ranjan Samal

**Permanent Invitees**  
All former Presidents, Hony. Secretaries/ Secretary Generals

**Editor MEJ**  
Dr P.V. Rao

## this issue contains...

President's Message	5
Editor's Desk	7
News from the Mineral World	9
Distinguishing Roles and Responsibilities of Exploration Geoscientist and Mining Geologist - Perspectives on Emerging Challenges - Dr Sudesh Kumar Wadhawan	15
Review on Controls and Guides of Base Metals Mineralisation at Northwestern part of Indian Subcontinent - Anirban Das & Suryanshu Choudhury	23
CSR Activities - HCL	28
MEAI News	35
Conferences, Seminars, Workshops etc.	38

Correspondence Address

### MEAI National Headquarters

Contact: **Secretary General,**  
**Mining Engineers' Association of India**  
F-608 & 609, Raghavaratna Towers, 'A' Block, VI Floor,  
Chirag Ali Lane, Abids, Hyderabad - 500 001.  
Ph.: 040-66339625, 23200510

E-mail : meai1957@gmail.com  
website : www.meai.org

The Views expressed by the authors in these pages are not necessarily those of Publisher / Editor / MEAI. Reproduction in whole or in part is strictly prohibited without written permission from the publisher.