



तकनीकी पत्रिका विषय-सूची CURRENT CONTENT

(Technical Journals) (A Monthly Current Awareness Service from Technical Journals) **Vol.5 No.11, November, 2021**

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 11th issue of Volume-5 for this service named "तकनीकी पत्रिका

विषय - सूची" (Current Content- A Monthly Current Awareness Service from Technical Journals) Vol.5 No.11, November 2021.

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 Ext. 1210, 1206

	<u>I N D E X</u>	
<u>S.No</u>	<u>Title</u>	<u>Page No</u>
1)	Engineering & Mining Journal	3
2)	Iron & Steel Review	4-5
3)	Journal of Geological Society of India	6-7
4)	Minerals & Metals Review	8
5)	Mining Engineers' Journal	9

Engineering & Mining Journal, Vol.222 No.09, September 2021





FEATURES

Truck Innovations Show Shape of Things to Come Top suppliers offer futuristic solutions to help miners decarbonize, automate, boost efficiency and meet U.N. sustainability goals	24
Lessons on Ore Factories Allan Moss and Rob Bewick join E&MJ to discuss the challenges and opportunities cave mining offers, both today and tomorrow	32
Example 1 Example 1 Example 1 Example 2 Example 2 Example 2 Example 3 Examp	• 38
Farring Changes Chains	

Forging Stronger Chains Producers are taking steps to ensure future calamities won't break essential links in supply chains 44

LEADING DEVELOPMENTS

BHP Will Spend \$5.7B on Jansen Project	4
Rio Tinto Launches Vaccination Blitz	
Rio Tinto Resumes Operations at Richards Bay	Minerals4
Codelco Inaugurates New Rajo Inca Project	5
Freeport Indonesia Moves Forward With Smelte	r5
Bluejay Forms JV With KoBold to Explore Green	land5
Arizona Gold, Golden Predator Approve Merger.	6
Vedanta Emerges as Large Buyer of Renewable	e Energy6
Gold Royalty, Ely Gold Complete Combination	6

AROUND THE WORLD

U.S. & Canada: Monarch to Reopen Beaufor Mine	8
Latin America: EMX Buys Royalty Stream on Caserones in Chile	
Australia/Oceania: Northern Star Sells Kundana Assets	14
Africa: Khoemacau Produces First Copper-silver Concentrate in Botswar	a 16
Europe: New Russian Fiscal Policy Could Cost Metal Companies Billions	



This month, E&MJ reports on developments with haul trucks. Mine operators and equipment manufacturers are looking at various ways to reduce emissions. On the cover, a wheel loader dumps its load into a Cat 793F haul truck. (Photo: Caterpillar)

DEPARTMENTS

Calendar	
Classified Advertisements	
Equipment Gallery	
From the Editor	
Markets	64
Operating Strategies	
People	
Processing Solutions	
Suppliers Report	
This Month in Coal	





www.e-mj.com

SEPTEMBER 2021 • E&MJ 1

Iron & Steel Review, Vol.65 No.05, October 2021

Features

Editor & Publisher: Santosh Mahanti

Directors: Sabita Mahanti Abhishek Mahanti

Director & Content Strategist: Kritika Mahanti

Editorial: Anindita Baneriee Megha Ghosh

Marketing: Shyamalendu Banerjee Angan Chatterjee Sanjana Tiwari

Design & Layout: Dipak Adhikari Sambaran Karmakar

Editorial & Corporate Office: Merlin Links, Block 5E/5F, 5th 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 Website: 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

\$ 1,500 (Yearly)

€ 1,250 (Yearly) Digital Copy

\$ 800 (Yearly)

€ 500 (Yearly)

• Shipping Charge ₹ 1200 (Yearly) • 5 % GST on 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.



गेय खाँ

रिय

EN

INDIAN BUREAU OF MINES

पुरतकालय

2212

Special Feature 12

Need to Revisit National Steel Policy 2017

National Trends

SAIL is ready to move to the next realm of expansion: Chairman

Global Trends

40

India

24

SMS group and MMK sign an MoU to reduce steel carbon footprint

Interview

54 "The future is bright for the Indian refractory market"



91

Focus 63

Ship Breaking Industry of South Asia: Past, Present and

Future - A Special Focus on



Casting a Vote for Productivity



Steel Market

76

Iron & Steel Summary for August 2021

World Steel

83

worldsteel Short Range Outlook 2021

Company News

88

Joint Venture Primobius **Develops Scalable** Sustainable Recycling Solutions for Lithium-Ion **Batteries**

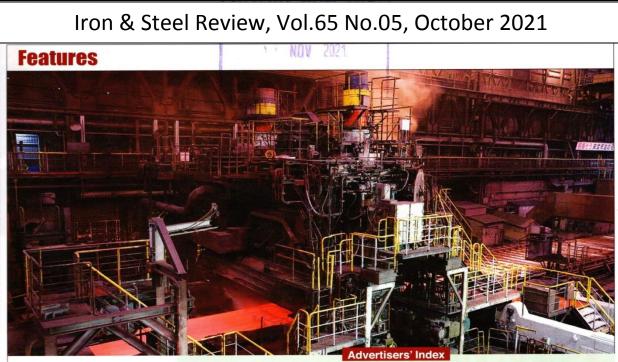
Market & Product

100% Quality Control for Wire Rods with Optical Emission Spectroscopy

Steel Technology

99

4



Refractory

110

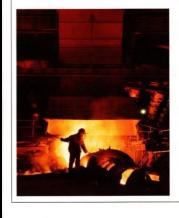
Use of Thermax® N990 Thermal Carbon Black as **Carbon Source in Taphole** Clay

Statistics

114

World Crude Steel Production - August 2021

Indian Steel Market & Prices – August 2021



A	
Aman Machine Tools Pvt. Ltd	
Atomat Group	
Arvind Ceramics (P) Ltd.	
ARB Bearing Ltd	
C	
Creative Carbon Pvt. Ltd.	
CCRT Laboratories	
D	
Danieli Corus India Pvt. Ltd.	
Danieli & C Spa	
Dalmia-OCL Refractories Limited	Cover, 76, 114
E	
Electrotherm (India) Limited	
Eastern Equipment & Engineers P. Ltd	
ERNST Industrieanlagen GmbH	
Elkem	
G	
Gita Refractories (P) Ltd.	15
Н	
H & K Rolling Mill Engineers Pvt. Ltd	
Hi-Tech Chemicals (P) Ltd.	
1	
ISR In House AD	
Indiana Machine Tools	
ISR Digital Ad	
ifm electronic India Private Limited	
J	
Jindal Steel & Power Limited	
К	
KELK	53
Kailash Marketing Associates	
L	
Libratherm Instruments Pvt. Ltd	

MOIL Limited	
MAGMA Engineering India	
Maithan Ceramic Limited	
Mipalloy Nomura Plating Company LLP	Back Cover
N	
NMDC Limited	17
0	
Orind Special Refractories (P) Ltd.	
Ρ	
PSI	
R	
RINL	
Refratechnik Steel	
RHI Magnesita	
S	
SMS group	
Sarvan Carbochem LLP	
SEW Eurodrive	
Steefo Industries Private Limited	
Shandong Mingren Heavy Machinery Co., Ltd	
SKF	
	90
Trans a star to and to	
TH Company	Third Cove
TH Company Transformers & Rectifiers (India) Ltd	Third Cover
TH Company Th Company Transformers & Rectifiers (India) Ltd TRL Krosaki Refractories Limited	
TH Company Transformers & Rectifiers (India) Ltd TRL Krosaki Refractories Limited TVQ Coke Oven Consultants (P) Ltd	
TH Company Th Company Transformers & Rectifiers (India) Ltd TRL Krosaki Refractories Limited	

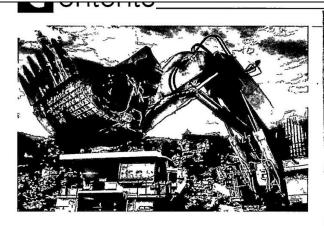
Journal of the Geological Society of India, Vol.97 No.11, November 2021 THE GEOLOGICAL SOCIETY OF INDIA (Abstracted/Indexed in AGI's Bibliography and Index of Geology, Chemical Abstracts, Current Contents, GEOBASE, GEoRef, Mineralogical Abstracts, GeoArchive, Thomson ISI database (SCIE, CC/PC & ES)) **NOVEMBER 2021** No. 11 Vol. 97 CONTENTS Great and Major Earthquakes in the Himalayan Arc. 1327 VINEET K. GAHALAUT RESEARCH ARTICLES Mineral Chemistry and Geothermobarometry of Amphibolite-Granulite Facies Basement Rocks Concealed Below Deccan Volcanic Covered 1993 Killari Earthquake Region, Maharashtra, India. PRIYANKA TRIPATHI, H.K. SACHAN, V. RAJAGOPALAN, O.P. PANDEY, SUJEET KUMAR DWIVEDI and 1331 G. PARTHASARATHY Epigenetic Copper Mineralization in Raipur-Mokhampura Area, Mangalwar Complex, Bhilwara District, Rajasthan. 1340 BINAMRA PUSPALAK, LOPAMUDRA PANDA and SHUBHABRATA MUKHOPADHYAY Adapting Rainfall Variability to Flood Risk: A Case Study of the Ghaggar River Basin. 1347 Sanjoy Gorai, Dwarikanath Ratha and Amit Dhir Coralline Algae from the Late Pleistocene Miliolite Formation of Kachchh, Western India. 1355 SHYAM N. MUDE, PRADEEP KUNDAL AND SHASHIKANT D. RAUT Development of Surface Level Seismic Hazard Maps Considering Local Soil Conditions for the State of Haryana, India. 1365 NITISH PURI and Ashwani Jain Application of Microseismic Monitoring in Analysing the Stability of Underground Cavern. VIKALP KUMAR, PRAKASH CHANDRA JHA, NAGENDRA PRATAP SINGH and SIVAKUMAR CHERUKURI 1379 Evaluation of Slope Stability Analysis using Kinematic and Chart Method: A Case Study. RAHUL KUMAR VERMA, PRATEEK SHARMA, RAJESH SINGH and T.N. SINGH 1387 Rare Earth Element Metallogeny in Indian Continental Shelf and Ocean Floor. 1396 YAMUNA SINGH Stratigraphy and Paleoenvironmental Analysis of Offshore Gulf of Cambay, Western India. 1403 Abiraman Govindan and L. Chidambaram Demarcation of Coastal Dune Morphology and Dune Patterns using Geospatial Models: A Case Study from Manapad Coastal Stretch, Tamil Nadu, South India. 1408 PRAVEENRAJ DURAI, SARUNJITH K.J. and APARNA S. BHASKAR 1325

Journal of the Geological Society of India, Vol.97 No.11, November 2021	021
---	-----

Geochemical Studies of some Heavy Metals' Toxicity in Grandwater with their framework and the second state of the second state	1415
Suitability of Groundwater Quality with Precipitation in the Western First of Labe Computer Fifther Uttar Pradesh. Daya Shankar Singh and Ajai Mishra	1415
An Integrated Approach for Delineating and Characterizing Groundwater Depleting Metapolisies Coastal State of India. Amiya Basak, Jayanta Das, A.T.M. Sakiur Rahman and Quoc Bao Press	1422
Alarming Realities of Groundwater Dynamics in Basaltic Region through RS, GFS-Based Grained of Historical Data. SNEHALATA CHAWARE, NITIN PATIL and Adwait Patil	1429
Hiemalora stellaris from Ediacaran Sonia Sandstone of Jodhpur Group of Marwar Supergroup, Western Rajasthan, India. V.S. Parihar, Hukmaram, Pawan Kumar, C. P. Khichi and Anshul Harsh	1441
Prioritization of All Blocks in Districts of the Jaipur Division with Investigation of Factors Affecting Significant Trends in GWLs. SANJU R. PHULPAGAR and GANESH D. KALE	1447
The Hold North and Ganesh D. KALE	1454
BOOK REVIEW	
A Synthesis of Depositional Sequence of the Proterozoic Vindhyan Supergroup in Sone valley. A Field Guide. by Subir Sarkar and Santanu Banerjee. <i>Reviewed by</i> R. NAGENDRA	1465
NEWS AND NOTES	
Report on the Inaugural Webinar on Indian Peninsular River-Basins Council (IPRBC). P. KRISHNAMURTHY and R.H. SAWKAR) 1466
D.R. Patel, P.O. Alexander, N.K. Dutta and G.R. Chauhan	: 1468
Geology and Seismic Susceptibility of Chennai City. / 2021 R. SRINIVASAN	1470
OBITUARY केंदीय पुरतकालय Dr. Krishna Kishor Prasad (1933-2021), Subharyoti Das Goursurty Ductor Data CENTRAL LIBKARY	1471
Prof. A. H. M. Ahmad (1961-2021). RASHID UMAR and M ADNAN QUASTIC	473
Cover	
Seismicity of the Himalayan arc, rifts in the Tibetan plateau and subsurface ridges in the Indo-Gangetic plates. Ecological are from the ISC catalogue for a period from 1964-2019. The ruptures of earthquakes of M>7.5 of part 200 years in Himalayan arc are shown by red rounded rectangles and ellipses. For details see pages 1327-1330.	akes the
ADDRESS OF EDUTOR	
ADDRESS OF EDITOR	

All papers intended for publication and also related correspondence should be added by a strain of the second seco

Minerals & Metals Review, Vol.47 No.10, October 2021





16 Policy View

Reforming the mining sector in India: An Analysis of the latest amendments to the MMDR Act

Amended MMDR Act a boost for mining activity in India

Govt may further amend MMDR Act

24 Mining

Prospects & challenges of mineral-based industries and utilization of wastes for Make in India

Challenges & opportunities facing the mining industry

India grapples with Covid-led disruptions in mining

Why high dividends may not pay off for mining India to explore if there can be co-development of mining and ecology

Trends in underground hard-rock mining for gold & base metals

37 Mining Equipment

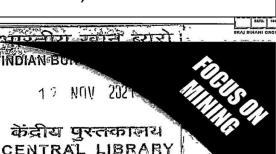
Earthmoving equipment market to display a CAGR of 2.4% till 2026

4] Iron Ore

Global iron ore production growth to average 3.6% between 2021-25

42 Coal

Private firms to drive India's coal output despite Covid-19 pandemic



43 Rare Earths

Miners scramble to develop rare earths deposits ex-China

44 Solar Power

Harnessing the sun: how rising solar power demand impacts base metals

Gautam Solar launches new trading division for cost-effective solar panel components

47 Industry Woes

Why women are leaving the mining industry and what mining cos can do about it ?

53 Techno Trends

ABB technology to improve quality and lower costs for Tata Steel plant

ABB unveils game-changing ABB Ability™ eMine to fast-track transition to all-electric mines

55 Macro Focus

Mining, power, drive factory output to near pre-Covid level

56 Awards Update

Vedanta Aluminium shines at PAT Cycle-II scheme

50 Events

Recycling Industry echoing BIS imports curbs on secondary manufacturers that back Circular Economy

COP26's dirty secret

ELROMA 2021 to focus on greener solutions for electrical rotating machine industry

64 Statistics

Minerals & Metals Review - October 2021 Q 4

