

2019-20

## JOURNALS

1. *Recovery of iron from bauxite residue using advanced separation techniques*, **SB Rai**, MT Nimje, MJ Chaddha, SwetaModak, KR Rao, A Agnihotri; *Minerals Engineering (Elsevier)* Vol.-134: pp 222-231, 2019. April 2019.
2. *Recycling of Industrial Rejects of Value Addition and Resources Augmentation*; **Mohamed Najar P A**, Amrita Karn, Paresh Nageshwar; *MRAI Journal: Material Recycling* 1(2), 50-53, April 2019.
3. *Effect of carbon nanotubes on solution treatment temperature and dissolution characteristics of precipitates in Al alloy produced by high-energy milling and hot extrusion*; **N.S. Anas**, S. B. Chandrasekhar, R. K. Dash, Tata N. Rao, R. Vijay; *Transactions of the Indian Institute of Metals*, Vol-72, 2687–2697, June 2019
4. *Microstructural characteristics and mechanical properties of CNT/Ni coated CNT–dispersed Al alloys produced by high energy ball milling and hot extrusion*; **N.S. Anas**, M. Ramakrishna R. Vijay; *Metals and Materials International*, Vol-26, 272–283, June 2019.
5. *Autogenous Dissolution and Nano-Processing of Iron in Red Mud: Green Chemistry for Value Addition and Recovery of Materials*; **Mohamed Najar P A**, Amrita Karn, Sneha Dwivedi, Priyanka Nayar, SP Puttewar, A Agnihotri; *Materials Today, Elsevier*, Volume 26(2020), Part 1, 69-76, July 2019 (<https://doi.org/10.1016/j.matpr.2019.05.378>)
6. *Comparative study of phase transformation of Al<sub>2</sub>O<sub>3</sub> nanoparticles prepared by chemical precipitation and sol gel auto combustion methods*, **Priyanka Nayar**, Sayali Waghmare, Priyansh Singh, Mohamed Najar, Suresh Puttewar, Anupam Agnihotri, *Materials Today: Elsevier*, Volume 26 (2020), 122-125. July 2019 (<https://doi.org/10.1016/j.matpr.2019.05.450>)
7. *Studies on beneficiation and leaching characteristics of rare earth elements in Indian red mud*, **Upendra Singh**, SonaliThawrani, M.S. Ansari, SP Puttewar & Anupam Agnihotri, *Russian Journal of Non-Ferrous metals*, 60(4):335-340, July 2019.
8. *Value added material for refractory application*, **Upendra Singh**, M.S. Ansari, DR Meshram, SonaliThawrani, *MRAI Journal: Material Recycling*, Vol 1 Issue, 3, PP 62-65, June-July 2019.
9. *Innovative process for boehmite precipitation in Bayer circuit*, **SB Rai**, MJ Chaddha, KJ Kulkarni, MT Nimje, KR Rajshekhar, P Mahendiran, RJ Sharma, A Agnihotri; *Journal of Sustainable Metallurgy*, 6, 18–25 (2020). <https://doi.org/10.1007/s40831-019-00239-5> : Aug 2019.
10. *Disposal practices and utilization of red mud (bauxite residue): A review in Indian context and abroad*, **SB Rai**, S Bahadure, MJ Chaddha, A Agnihotri; *Journal of Sustainable Metallurgy*, DOI 6, 1–8 (2020). <https://doi.org/10.1007/s40831-019-00247-5> : Oct 2019
11. *Instrument for Instantaneous and onsite measurement of important bath parameters of aluminium electrolysis cell*, **Vimal K Jha**, Rajendra J Sharma, Anupam Agnihotri, *MRAI Journal: Material Recycling*, Vol 1, Issue 6, pp 34-36, January 2020
12. *Tribological performance of CNT/Ni coated CNT dispersed–Al alloys produced by mechanical milling and extrusion*; **N.S. Anas**, L. Rama Krishna, R. K. Dash, R. Vijay; *Journal of Materials*

Engineering and Performance <https://link.springer.com/article/10.1007/s11665-020-04693-1>,  
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### CONFERENCE PROCEEDINGS.

#### **Recycling of Aluminium for Alloy Manufacturing&Extrusion Billet Casting, Pune (April, 2019)**

13. Quality of AA6063 Alloy Billets, **R N Chouhan**, P Mahendiran, A Agnihotri; Conference on Recycling of Aluminium for Alloy Manufacturing and Extrusion Billet Casting, Pune, 25-26 April, 2019.

#### **ICNFMM-2019, Kolkata (July 2019)**

14. Recovery of Mineral Values from Aluminium Industry Rejects by Chemical Treatment: Scope of Utilization and Product Development, Proceedings, **Mohamed Najar P A**, Amrita Karn, Kalyani Dhore, Sayali, Waghmare, Priyanka Nayar, PG Bhukte, MJ Chaddha, SP Puttewar and A. Agnihotri; 23<sup>rd</sup> International Conference on Non Ferrous Minerals and Metals (ICNFMM-2019), Kolkata 12-13 July 2019.
15. Technical assessment of lateritic bauxite - a case study of high-level bauxite deposits in Maharashtra: **Pravin Bhukte**, Mohamed Najar, G T Daware, S P Masurkar, S P Puttewar and A Agnihotri, 23<sup>rd</sup> International Conference on Non Ferrous Minerals and Metals (ICNFMM-2019), Kolkata 12-13 July 2019
16. Extraction of iron oxide from bauxite residue using Physical Beneficiation, **Upendra Singh**, M. S. Ansari, SonaliThawrani, RajnikantBorkar, Mayur Tirpude, S. P. Puttewar & A. Agnihotri, 23<sup>rd</sup> International Conference on Non Ferrous Minerals and Metals (ICNFMM-2019), Kolkata 12-13 July 2019
17. Utilization of Nano Processed Industrial Wastes/Rejects For Use As Supplementary Cementitious Materials (SCM) In Concrete Practice: **Priyanka Nayar**, Numanuddin Azad, Sayali Waghmare, Mohamed Najar, Suresh Puttewar, Anupam Agnihotri, 23<sup>rd</sup> International Conference on Non Ferrous Minerals and Metals (ICNFMM-2019), Kolkata 12-13 July 2019

#### **ASSOCHAM-2019, Bengaluru (Aug 2019)**

18. Prospects of Bauxite & Laterite deposits of Karnataka: **Pravin G Bhukte**, S P Puttewar, A Agnihotri, Conference "Mining in Karnataka" -Raw material security for sustainable operations organized by The Associated Chambers of Commerce and Industry of India (ASSOCHAM), Bengaluru, 29 August 2019

#### **IBAAS-2019, China (Sep 2019)**

19. Supporting Low-Carbon Infrastructure:Consolidation of Industrial Rejects by Geopolymerization and Immobilization of Toxic Components for Utilization; **MohamedNajar P A**, VishakhaSakhare, Amrita Karn, Sayali Waghmare, SP Puttewar and A Agnihotri 8<sup>th</sup> International Bauxite, Alumina & Aluminium Conference & Exhibition (IBAAS), Guiyang, China, 4-6 September 2019.
20. Quality of AA6063 Alloy Billets, **R N Chouhan**, P Mahendiran, VNSUVAMmu, A Agnihotri, 8<sup>th</sup> International Bauxite, Alumina & Aluminium Conference & Exhibition (IBAAS), Guiyang, China, 4-6 September 2019.

21. *Indian bauxite residue: studies on potential resource for rare earth elements*, **Upendra Singh**, SonaliThawrani, M.S. Ansari, S.P. Puttevar and Anupam Agnihotri, 8<sup>th</sup> International Bauxite, Alumina & Aluminium Conference & Exhibition (IBAAS), Guiyang, China, 4-6 September 2019.
22. *Die design and press validation for a complex profile produced by port hole dies using AA6063 alloy*, **V.N.S.U. Viswanath Ammu**, P. Mahendiran, R.N. Chouhan, Samrat Ambade, PhirozeDungore and Anupam Agnihotri; 8<sup>th</sup> International Bauxite, Alumina & Aluminium Conference & Exhibition (IBAAS), Guiyang, China, 4-6 September 2019.

#### **REAL-2019, Bhubaneswar (Nov 2019)**

23. *SPL--Spent pot lining "A hazardous waste of Aluminium Industry" generation & utilisation of SPL in Smelters: Status & Technology*: **M T Nimje**, S U Bagde, V K Jha, Anupam Agnihotri, Capacity building program- 'REAL- Resource Efficiency on Aluminium' (REAL-2019) Bhubaneshwar, 21-23 November 2019
24. *Utilization of aluminium industry rejects for making building products*, **Mohamed Najar P A**, Capacity building program- 'REAL- Resource Efficiency on Aluminium' (REAL-2019) Bhubaneshwar, 21-23 November 2019
25. *Generation, reduction of waste in alumina refinery - Indian & Global Status*, **SB Rai**, Capacity building program- 'REAL- Resource Efficiency on Aluminium'(REAL-2019) Bhubaneshwar, 21-23 November 2019
26. *Bauxite scenario and status of India with emphasis on low grade utilization*: **P G Bhukte**, Capacity building program- 'REAL- Resource Efficiency on Aluminium'(REAL-2019) Bhubaneshwar, 21-23 November 2019
27. *Quality of AA6063 Alloy Billets*, **R N Chouhan**, Capacity building program- 'REAL- Resource Efficiency on Aluminium' (REAL-2019) Bhubaneshwar, 21-23 November 2019

#### **STAR-2019, Mumbai (Dec 2019)**

28. *Process optimization for leaching and extraction of Rare Earths from Indian Red Mud*, **Upendra Singh**, SonaliThawrani, RajnikantBorkar, Jyoti Pendam, Mayur Tirpude & Anupam Agnihotri, National Conference on Science, Technology and Applications of Rare Earths (STAR-2019), Mumbai 5-7 December 2019

#### **MPT-2019, Hyderabad (Dec 2019)**

29. *A way forward in Waste Management of Red mud/Bauxite residue in Building and Construction Industry*, **SB Rai**, S Bahadure, MJ Chaddha, A Agnihotri, XVIII Mineral Processing Technology Conference (MPT-2019) on 'Mineral Processing for Global Economy: Concepts to Commercialization' Hyderabad, 16-18<sup>th</sup> December 2019.

#### **IMME-2019, Tiruchirappalli (Dec 2019)**

30. *Preparation of Calcium Oxide Nanoparticles from Industry Rejects: Recovery and Value Addition of Mineral Values*; **Priyanka Nayar**, Sayali Waghmare, Numannudin Azad, Paresh Nageshwar, Mohamed Najar, Anupam Agnihotri; 2<sup>nd</sup> International Conference on Recent Trends in Metallurgy, Material Science and Manufacturing (IMME-2019), NIT Tiruchirappalli, December 27-28, 2019.

#### **GREEN ASHCON-2020, Bhopal (Feb 2020)**

31. Recovery of silica from Coal Fly Ash (CFA), MT Nimje, **SB Rai**, VK Jha, SUBagde, S Kowe, A. Agnihotri, Conference on "Fly ash utilisation & Green building materials", Green AshCon-2020 & Green BuildCon-2020, Bhopal, 13-15<sup>th</sup> February 2020

**Advanced Light-weight Materials & Structures, Hyderabad (Mar 2020)**

32. Comparison of metal flow characteristics in aluminium extrusion die using numerical simulations for AA6063 and AA7075, V.N.S.U. Viswanath Ammu, Samrat Ambade, Anas N S, R N Chouhan, Dr. Anupam Agnihotri, "First International Conference on Advanced Light-weight Materials and Structures" held at CMR Technical Campus, Hyderabad 6- 7, March 2020.

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**Journals :**

1. *Microstructure and texture development during deformation and recrystallisation in strip cast AA8011 aluminium alloy*, Ranjeet Kumar, Aman Gupta, Amit Kumar, R N Chouhan, Rajesh K. Khatirkar; *Journal of Alloys and Compounds*, 742, 369-382, April 2018.
2. *Mathematical model for estimating variation in specific energy consumption with respect to capacity utilization for aluminium smelting plant*, V K Jha, A Agnihotri, R J Sharma, M J Chaddha; *Springer, Energy Efficiency*, 11 (3), 773-776, 2018.
3. *A simplified approach for generation of bearing curve by velocity distribution and press validation for aluminium extruded profile*, VNSUV Ammu, P Mahendiran, Anupam Agnihotri, Samrat Ambade, P R Dungore; *The International Journal of Advanced Manufacturing Technology*, Vol- 98(5-8), 1733-1744, Sept 2018.
4. *Preparation of Fe/Ti/Al nano-particles and mixed nano-composites from aluminium industrial wastes*, Priyanka Nayar, Mohamed Najar, Prajakta Ogale, Shama Wadsariya, Suresh Puttewar and Anupam Agnihotri; *Journal of Electronic Design Technology*, 9 (2), 24-29, 2018.
5. *Quantitative determination of metals in waste aluminium dross*, Upendra Singh, M S Ansari, S A Thawrani, D R Meshram, S P Puttewar, A Agnihotri; *Journal of Applied Chemistry*, 11 (9), 1-4, 2018.
6. *Studies on physical beneficiation & characterization for extraction of rare earths from bauxite residue*, Upendra Singh, Sonali Thawrani, M S Ansari, Mayur Tirpude, S P Puttewar, Anupam Agnihotri; *Metal Asia Magazine*, 7, 124, July 2018.
7. *Fabrication of AA1050/B4C surface composite by Friction Stir Processing (FSP) and investigation on mechanical and wear characteristics*, Hemendra Patle, Ashish Gupta, P Mahendiran and Ravikumar Dumpala; *IOP Conference Series: Materials Science and Engineering*, 402(1), Oct 2018.
8. *Development of Super Thermal Resistant Al-Zr Alloy for Overhead Transmission Lines*, R N Chouhan, A Agnihotri, *MRAI Journal, MATERIAL RECYCLING* Feb 2019; 1(1), pp 62

**Conference Proceedings.**

9. प्रविण भुक्ते, मोहमद नजर, सुरेश पुट्टेवार, अनुपम अग्निहोत्री; मूल्यवर्धित उत्पाद के लिए बॉक्साइट खान की अपव्ययी के प्रसंस्करण; अखिल भारतीय राजभाषातकनीकी सेमिनार; भारतीय खान बुरों, नागपुर (अप्रैल १९, २०१९)

**DST-TIFAC Meet, Nagpur (April 2018)**

10. *Status of Lateritic Bauxite deposits: possibilities for up gradation: Pravin G Bhukte; Brainstorming Session on "Opportunities & Potential of value addition in Bauxite: Technical Needs, Requirement and Way Forward" DST-TIFAC & JNARDDC, April 09, 2018*
11. *Development of value added products from un utilized materials (Bauxite Mine): Pravin G Bhukte; Brainstorming Session on "Opportunities & Potential of value addition in Bauxite: Technical Needs, Requirement and Way Forward" DST-TIFAC & JNARDDC, April 09, 2018*

**BR2018, Athens, Greece, May 2018**

12. *Innovative process for extraction of iron values from east coast bauxite residue with gainful application of non-iron materials; S K Biswal, B K Sathpathy, A Agnihotri, D P Chakravarthy; 2nd Bauxite Residue Valorisation and Best Practices Conference (BR2018), Athens, Greece, May 7-10, 2018*

**Conference on "Advancement of Refractory Application in Aluminium Industries, VEDANTA (June 2018)**