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Page 5 — Details of papers included in the latest edition of the Mineral Processing and Extractive Metallurgy, IMM Transactions C including two papers by Noel Warner

Page 6 — More information on Chris Broadbent’s recent trip to South America to discuss lithium. See the full article in Materials World June edition page 68.

Page 7 — Advance notice of a conference at 297 Euston Road on Flexible and Mobile Processing.

Page 8 — The Editor would like to hear from you; where in the world are you? We understand the confines of employer confidentiality and the GDPR but send us a photo and brief write up of your on-limit activities to inspire the next generation to take up Mineral Processing & Extractive Metallurgy (and see the world).

MP&EM is a technical division of the Institute of Materials, Minerals and Mining, Registered Charity No 269275, 297 Euston Road, London NW1 3AD www.iom3.org
MP&EM Board Activities Summary, May 2018

- The MP&EM Premier event Geometallurgy2018 was held on 19-20 April 2018 at 297 Euston Road, the IOM3 London headquarters.
- The Board is pleased to report that the Camborne School of Mines of Exeter University will be offering a conversion course in Minerals Engineering from September 2018 to serve our industry. This has been an objective of the Board for some time and deserves supporting, refer to http://www.uec.ac.uk/csm/postgraduate-study/minerals-engineering/index.htm
- We are very pleased to report that Frances Perry of IOM3 Information Services has joined the MP&EM Board.
- The Board is backing the Conference “Flexible and Mobile Processing in the 21st Century” to be convened at 297ER over 5-6 December this year.
- 2019 is the 150 year anniversary of the founding of IOM3 through the Iron & Steel Society. The Division is arranging, with the other Extractive Divisions, a one day event at 297ER on 20 March next year.
- The Divisional Board will also contribute to the SGA Conference being held in Glasgow on 27-30 August 2019. See https://www.sga2019glasgow.com
- The Board is in the early stages of organising “Future Prospects in Minerals & Metals” at Trinity Hall, Cambridge in 2020.
- The International Extractive Industry database “OneMine” is live and available to members as part of member benefits, this complements IMMAGE.
- The General Data Protection Regulation, GDPR became law on 25 May and members are advised to familiarise themselves with the requirements - GDPRcomplianceGuide
- Please check your member profile at www.iom3.org/user to make sure that you have the correct preference selected for your technical division. IMMa is no longer available as a preferred technical division, being an umbrella body for the four resources divisions. All members selecting one of the four resources divisions as their preferred technical community automatically become members of IMMa.
- The second Board meeting of 2018 was convened at 297 ER on 31 May.
- The technical journal representing our discipline is Minerals Processing and Extractive Metallurgy, IMM Transactions C published by Taylor & Francis and is free to download. The journal publishes high quality refereed papers at the leading edge of MP&EM, MP&EM Trans C
- The MP&EM annual report for 2017 is available to all IOM3 members from the website.
- The CPD facility on the IOM3 website is available for members. Visit your member profile at www.iom3.org/user and follow the link on the top right hand side.

Front cover image provided by John Monhemius, Director of Anglo Asian Mining

Anglo Asian Mining have recently installed an industrial-scale UF/RO (Ultrafiltration/Reverse Osmosis) plant to treat barren leach liquors from the integrated heap leach/agitation leach/resin-in-pulp gold ore treatment facilities at their Gedabek gold-copper mine in Azerbaijan. The UF/RO plant is designed to treat up to 60 m³/hr of leach solution to produce water of high quality suitable for discharge to the environment. The RO reject sludge, which contains elevated concentrations of copper, silver and cyanide, is sent to the company’s SART (Sulphidisation Acidification Recycling & Thickening) plant for the recovery of the metal values as a precipitated sulphide concentrate and the cyanide is recycled to leaching. The new water treatment plant improves the sustainability of the operation at Gedabek by enabling the replacement of fresh water input with RO cleaned up water permeate and safe discharge of the permeate to the environment, during periods of excess water balance.
GEOMETALLURGY 2018

Professor Hylke J Glass, Rio Tinto Professor of Mining and Minerals Engineering, Exeter University managed the technical content of the Geometallurgy 2018 Conference held in April 2018 at 297 Euston Road in London.

A brief summary is presented here.

The MP&EM Division in combination with the Conference department of IOM3 organised the Geometallurgy 2018 Conference which was successfully convened at the London headquarters of the Institute, 297 Euston Road, on 19-20 April 2018.

The Conference was attended by 60 delegates from 10 countries. 23 presentations of great quality were given by distinguished experts in Geometallurgy and related disciplines.

Details of this exciting and topical event including the programme can be found on the Conference website:
www.iom3online.org/geo2018

Presentations will be available to registered delegates in the near future via a dedicated portal on the IOM3 website.

There were 2 keynote presentations:
The (Geo) Metallurgy of the Circular Economy given by Markus Reuter of the Helmholtz Institute Freiberg for Resource Technology
and
Geometallurgical Aspects of Project Design by David Meadows and Wolfgang Baum of Bechtel.
Frances Perry Reports on the Library and Information Services of the Institute

The library and information staff have been extremely busy in the past couple of months because of GDPR preparations, meetings, visits and additional workload associated with several ongoing developments.

After many years of discussions and contract negotiations, OneMine went live as free to members in Q1 of 2018. A visit to Genus in Nuneaton, the firm who are scanning all the former IMM, IMinE and other IOM3 publications was carried out. Various problems that have arisen with the first big batch of around 10,000 pages scanned were discussed. The scanning is mostly of excellent quality but there had been difficulties putting the papers into individual records and following detailed instructions. Keying of titles, authors and references are outsourced to Poland. Genus have now rectified various omissions and during the visit we were able to improve the understanding of each other’s processes and agree a workflow and communication pattern which should result in the next batch being completed more quickly and efficiently.

The first set of volumes has been returned to us, batch 2 has been collected for scanning and preparation of batch 3 is almost complete. The present task is to add abstracts and keywords (“metadata”) to batch 1.

The 755 papers/discussions/corrections from Trans. IMM 1990-1999 should therefore start appearing on OneMine as soon as the metadata is added. Batch 2 should be scanned and returned in the autumn and will add another 1,000 items from Trans IMM/Mining Engineer/Mining Technology 1987-1997. Many of these are news items rather than papers and will only appear on the IOM3 database, not on OneMine. Batch 3 for scanning at the turn of the year 2018/2019 will add at least another 700 papers from Trans. IMM 1984-1989 and conference proceedings such as Lead into the future, Advances in gold processing technology, Innovation in physical separation technologies (the Richard Mozley symposium and memorial volumes) and Minerals, metals and the environment II. A good selection of the former IMM’s mineral processing and extractive metallurgy papers from the 1980s and 1990s should therefore have been added to OneMine by this time next year – up to 500.

The software for the new platform for the scanned/digitised IOM3 publications is due to go live for user testing very soon. The quality is good although difficulties with author and keyword searching and some of the access details are being resolved. The individual scanned documents are available to library staff in the “back office” section of the platform and will be available to members as soon as we have added the metadata and been authorised to do so.

Now that the subscription base for IMMAGE and IMM Abstracts is declining, it no longer pays for the outside abstractors who contributed new records to the database. As part of IOM3 current budgetary balancing, we shall therefore be adding fewer new records each year, ideally focusing on in-depth technical papers of lasting value and on less readily accessible material such as conference papers. The set of 1949-1980 Zambian/Northern Rhodesian references and abstracts has been keyed from the card catalogue and the set of references from Peru is now being added. Getting more of the older records keyed will add value to IMMAGE as a source of references not easily found on the world wide web which should open up new marketing and revenue streams from this valuable resource.

There continues to be a reasonably steady stream of library and photocopy requests, many of them historical rather than technical. Some from paying enquirers need historical information for current purposes. Amateur historians are also willing to pay an enquiry fee. However, the library is still under-used and now that Stuart Preston is working only 3 days a week the CEO has passed responsibility for improving the cash flow to Diane Aston who has developed and run the highly successful schools programme and is full of enthusiasm for developing the library as a technical resource. She has the advantage of being based in the Grantham office, so will be in a better position to co-ordinate the day-to-day running of the library. The library is a unique collection of mining and minerals information and its value is priceless in this regard.

Cataloguing the Tata Steel library is almost finished. The titles and abstracts of the Imperial College hydrometallurgical theses are being catalogued for adding to IMMAGE but there are a number of items still outstanding such as books and conference proceedings that came to us from Rio Tinto’s library and the coal books and reports from the Doncaster library.
**Mineral Processing and Extractive Metallurgy, IMM Transactions C**

*Volume 127, 2018 - Issue 2*

Available free to IOM3 members through the website

**Contents:**

- **Zero CO₂ steelmaking in a future low carbon economy.**
  1. Energy conservation in smelting hematite ore directly to refined iron slab
  2. Secondary steelmaking using refined iron slab, with clean and contaminated scrap
  by Noel Warner University of Birmingham, UK

- **Novel multi-stage aluminium production: part 1 – thermodynamic assessment of carbossulphidation of Al₂O₃/bauxite using H₂S and sodiothermic reduction of Al₂S₃**
  By M A Rhamdhani, Swinburne University of Technology, Melbourne, Australia et al.

- **Importance of textural information in mathematical modelling of iron ore fines sintering performance**
  By E Donski, CSIRO Mineral Resources, Kenmore, Australia et al.

- **A hydrometallurgical process for the recovery of metal values from spent Cu–Cr catalyst**
  By J Panigrahi, Talcher College, India et al.

- **Effect of slag basicity in ferromanganese production using medium-grade manganese ore from East Java-Indonesia**
  By Fajar Nurjaman R & D Division for Mineral Technology, Indonesian Institute of Sciences, Jakarta et al.

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**New Lithium Extraction Cell – Buenos Aires University**

See next page for more details.

Full article appears in the June issue of Materials World, page 68.
Innovations in the Lithium supply chain –
Views from Latin America and the United Kingdom

International Seminar organised by the Heather Goodale – Climate and Green Growth Officer at the British Embassy in Chile and the Inter-American Development Bank

IOM3 Fellow, Dr Chris Broadbent, Research Director at Wardell Armstrong International Ltd and Project co-ordinator of the EU FAME project was delighted to fly the flag for European Lithium knowhow and represent IOM3. Chris expounded the relevance of IOM3 to workers in the South American lithium industry, endorsing the position of the Institute as the global leader for professionals involved in the materials cycle.

Chris Broadbent (WAI) (3rd left), Professor Fabio Saccone, Y-Tec (centre), Oscar Wehtje, LME (3rd right) and Alfredo Fierro, DIT, Buenos Aires (2nd right) meet the Research Group of Professor Saccone developing next generation batteries.

See the June issue of Materials World, page 68 for more details
FLEXIBLE AND MOBILE PROCESSING IN THE 21ST CENTURY

The FAME Conference in conjunction with The Mining Technology Division of IOM3

5–6 December 2018
IOM3, 297 Euston Road, London NW1 3AD

FAME – Flexible and Mobile Economic Minerals Processing – is delighted to combine with MTD to present the results of the Horizon 2020 Project – FAME

Speakers will be drawn from the FAME Consortium and invited industry experts to give keynote presentations. 
Further details including speaker programme to follow.

For further details please contact: conferences@iom3.org
We would like to hear from you!

We’re always interested in hearing from our members! If you would like to share a story, publish an article or just provide some feedback on the newsletter, please get in touch! All enquiries can be sent to our editor:

Mike Cave
Email: mikecavepyro@gmail.com

How do I join?

Individual membership of the MP&EM Division is achieved by joining the Institute of Materials, Minerals and Mining. You can join IOM3 online at www.iom3.org/join to get immediate access to member benefits, or you can complete our printed membership application form. For details of membership grades and professional qualifications visit: www.iom3.org/membership

Company membership: More information about Industry Affiliate membership and an application form are available at: www.iom3.org/ias