APRIL 2000

25 The Collahuasi copper project, Chile
M.W. Dufresne

31 Open pit mine planning with simulated gold grades
G.H. Blackwell

38 Drilling and blasting research at the Noranda Technology Centre
A.Piche, Q.Liu, H.Tran and L.Van Hjifte

45 Techniques of inverse drop raise blasting and slot drilling
Q.Liu and H.Tran

51 Hydraulic hand-held scaling bar
A.Felbinger, J.Szymanski, S_PLANETA

55 The use of ore microscopy data for flotation process control by means of a liberation model-A case study
E.Barros, M.M. Machado Leite, A.A.T. Cavalheiro

60 Mining education in Australia: A vision for the future
T.S. Golosinski

MAY 2000

59 Dragline monitoring, control, and navigation
J. Hansen

63 Horizon control technology for selective mining in underground coal mines
A.L. Craven and I. Muirhead

72 Effect of operating parameters of a liquid spray system on coal dust suppression
J.Kim and J.C. Tien

76 Integrating GPS technology into the management and operation of Highland Valley Copper

JUNE 2000

115 Temperature effects on the erosion of aluminum alloy
C.-K. Fang and T.H. Chuang

118 Process development studies by Dynatec for the pressure leaching of HBMS copper sulphide concentrates
J.Stiksma, M.J. Collins, P. Holloway, I.M. Masters and G.J. Desroches

124 The development of a novel hydrometallurgical process for nickel and cobalt recovery from Goro latérite ore

131 The effect of acidity'at temperature' on the morphology of precipitates an scale during sulphuric acid pressure leaching of latérites
D.H. Rubishov and V.G. Papangelakis

138 Improving powder factor and cap-rock fragmentation in limestone quarrying
B. Stimpson and J.J. Yablonski

145 Measurement of ball size distribution and wear kinetics in an 8 m by 5 m primary mill of Sarcheshmeh copper mine
S.Banisi, G.Langari-Zadeh, M.Pourkani, M.Kargar and A.R. Laplante
Advances in water powered rockdrilling
J.Wills

INTERNATIONAL JOURNAL OF ROCK
MECHANICS AND MINING SCIENCES

MAY 2000

445 Editorial

447 Rock mechanics and rock engineering in China: developments and current state - of - the - art
Jun Sun and Sijing Wang

467 Time - dependent tests on intact rocks in uniaxial compression
Yongsheng Li and Caichu Xia

477 The mechanics of cracks and a statistical strengh theory for rocks
Heping Xie and Feng Gao

489 Investigation of fracture behaviour during rock mass failure
Da'an Liu, Sijing Wang and Liyun Li

499 Numerical simulation of the geomechanical processes in rock engineering
Zhiyin Wang, Yunpeng Li, Sijing Wang and Zhifa Yang

509 Results of in situ stress measurementes and their application to mining design at five Chinese metal mines
M.Cai, L.Qiao, C.Li, B.Yu and S.Wang

517 Optimizing the contraction sequence of a serie of underground openings using dynamic construction mechanics and a rock mass fracture damage model
Weishen Zhu and Shucai Li

525 Three-dimensional back-anlysis of displacements in exploration adits - principles and application
Yang Zhifa, C.F. Lee and Wang Sijing

535 Optimization of soft rock engineering with particular reference to coal mining
Tongliang Wang and Quiuyan Fan

543 A new method of determining geostresses by the acoustic emission Kaiser effect
H.T. Wang, X.F.Xian, G.Z. Yin and J.Xu

549 Rock memory and intelligent computing of the excavation process in rock
X.F.Yu, S.G. Ge, J.Yu and Y.J. Shang

JUNE 2000

555 Numerical studies of the influence of microstucture on rock failure in uniaxial compression - Part I: effect of heterogeneity
C.A. Tang, H.Liu, P.K.K. Lee, Y.Tsui and L.G. Tham

571 Numerical studies of the influence of microstructure on rock failure in uniaxial compression - Part II: Constraint, slenderness and size effect
C.A. Tang, L.G. Tham, P.K.K. Lee, Y-Tsui and H.Liu

585 Observations and classification of roof strata behaviour over longwall coal mining panels in India
S.K. Das

599 Modeling impact in down-the-hole rock drilling
L.E. Chiang and D.A. Elias

615 Improved prediction of differential subsidence caused by underground mining
Ximin Cui, Xiexing Miao, Jin’an Wang; Shou-Yang, Huide Liu, Yanqi Song, Hong Land-Xikuan Hu

629 Effects of confining pressure and temperature on mixed-mode (I-II) fracture toughness of a limestone rock
N.A. Al-Shayea, K.Khan and S.N. Abduljauwad

645 Block system construction for three-dimensional discrete element models of fractured rocks
Lanru Jing

661 Effects of multiple parallel fractures on apparent attenuation of stress waves in rock masses
J.G. Cai and J.Zhao
683 New directions in rock mechanics-report on a forum sponsored by the American Rock Mechanics Association
S.D. Glaser and D.M. Doolin

699 Laboratory studies of acoustic emission prior to uniaxial compressive rock failure
V.Rudajev, J.Vilhelm and T.Lokajicek

705 Hugoniot equation of state of the Bukit Timah granite
J.L. Shang, L.T. Shen and J.Zhao

715 Reliability analysis of an open pit coal mine slope
Jiachen Wang, Wenhui Tan, Shiwei Feng and Rudi Zhou

723 Evaluation of mechanical rock properties using a Schmidt Hammer
O. Katz, Z.Reches and J. C. Roegiers

INDUSTRIAL MINERALS

APRIL 2000

21 Crude vermiculite
Producers & refined markets

29 Clays under fire
The supply of refractory clays reviewed

40 New age materials
Advanced ceramics

45 Minerals of the Indian subcontinent
Conference abstracts and biographies

MAY 2000

34 At your service
IM reviews UK trading and processing companies, their activities and role in the changing business of delivering minerals from mine to market

47 Quality considerations when specifying brown fused alumina
A look at the key criteria of brown fused alumina grades as required by today’s consumers

MINERALS ENGINEERING

APRIL 2000

345 Surface enhanced Raman scattering spectroscopic studies of the adsorption of flotation collectors
R. Woods, G.A. Hope and K. Watling

357 Preferential deportment of low - iron sphalerite to lead concentrates
P.A. Zielinski, K.A. Larson and A.W. Stradling

365 Gas dispersion properties: bubble surface area flux and gas holdup
J.A. Finch, Z.Xiao, C.Hardie and C.O. Gomez

373 Influence of the attachment of acidophilic bacteria during the oxidation of mineral sulfides
M.I. Sampson, C.V. Philips and R.C. Blake II

391 Preconcentration of gold by rice husk ash
W. Nakbanpote, P.Thiravetyan and C.Kalambaheti

401 The adsorption of precious metals and base metals on a quaternary ammonium group ion exchange resin
E. R. Els, L. Lorenzen and C. Aldrich

415 Application of dense-medium in an enhanced gravity separator for fine coal
R.Q. Honaker, N. Singh and B. Govindarajan

429 Tracer studies and breakage testing in pilot-scale stirred mills

459 Product size distribution in stirred media mills
Y. Wang and E. Forssberg

MAY 2000

485 The effect of grinding mill performance at division Salvador, Codelco-Chile
J.B. Yianatos, L.G. Bergh and J. Aguiler

497 Oxygen solubility modelling in ammoniacal leaching solutions: leaching of sulphide concentrates
D. Tromans

517 Magnesium removal in the electrolytic zinc industry
J.L. Booster, A. Van Sandwijk and M.A. Reuter

527 Effects of the textural and surface properties of activated carbon on the adsorption of gold dicyanide
M.D. Seke, R.F. Sandengbergh and N.M. Vegter

541 Cyanide oxidation by ozone in cyanidation tailings: reaction kinetics
F.R. Carrilo-Pedroza, F. Nava-Alonso and A. Uribe-Salas

549 Characteristics of heavy metal uptake by plant species with potential for phytoremediation and phytomining
T.V. Nedelkoska and P.M. Doran

563 Use of organic covers for acid mine drainage control
A. Peppas, K. Komnitsas and I. Halikia

575 Uranium extraction using biogenic ferric sulfate. A case study on quartz chlorite ore from Jaduguda, Singhbhum Thrust Belt (STB). Bihar, India

581 India’s first column flotation installation in the zinc cleaning circuit at Rajpura Dariba Mine, India
N.K. Mittal, P.K. Sen, S.J. Chopra, A.A. Jaipuri, R.K. Gaur and Mr. R. Jakhu

JUNE 2000

599 Operation of the Las Cruces ferric sulphate leach pilot plant
N. Smalley and G. Davis

609 Effects of thermal treatment on feldspar sorptive properties: identification of uptake mechanisms
S. Pelte, G. Flamant, R. Flamand, D. Gauther, E. Beche and R. Berjoan

623 Treatment of acid mine water by use of heavy metal precipitation and ion exchange
D. Feng, C. Aldrich and H. Tan

643 Investigation of the attachment of Thiobacillus ferrooxidans to mineral sulfides using scanning electron microscopy analysis
M.I. Sampson, C.V. Phillips and A.S. Ball

657 Upgrading of Kütahya region lignites by mild pyrolysis and high intensity dry magnetic separation
H. Koca, S. Koca and O.M. Koçkar

663 Gold recovery from jewellery waste
M. Delfmi, A. Manni and P. Massacci

667 Solvent extraction epulibria in copper (II)-iron (III)-LX984 system
H. Aminian and C. Bazin

673 Simulation of bond grindability test by using cumulative based kinetic model
B. Aksani and B. Sönmez

MINING ENGINEERING

APRIL 2000

19 Building the East-West Cross Drift Tunnel at Yucca Mountain
Brian Fulcher, John Eastlund and J.B. Copeland

27 Two-seam mining stability at OCFs Big Island trona mine

32 Mine modeling software for less than $1,000-usefulness and limitations
Betty L.Gibbs

39 TECHNOLOGY NEWS
Drilling and grouting for tunnel boring machines
Caterpillar dozers add performance features
Dredges aid in coal tailings reprocessing
Bucyrus shovel commissioned at Suncor oil sands mine

49 Silica collection concerns when using flooded-bed scrubbers
J.F. Colinet and R.A. Jankowski

55 Noranda's exploration strategy
D.L. Stevens

60 Estimation of diesel particulate concentrations in underground mines
R.A. Haney and G.P. Saseen

MAY 2000

33 Mining overview
R.F.Balazik, L.McCartan, D.E. Morse and S.F. Sibley

38 Exploration overview
D.R. Wilburn

48 Coal overview
F.L. Freme and B.D. Hong

70 SME ANNUAL MEETING : new frontiers in mining-meeting 21st century challenges
Tim O'Neil, Steve Krai and William R.Yernberg

94 China and East Asia - potential resources, specific projects
Willam R.Yernberg

97 New technology discussed at Tailings and Mine Waste '00

Steve Kral

101 Bit geometry effects on failure characteristics of rocks
V.B. Achanti and A.W.Khair

108 Mining industry benefits and concerns on environmental remote sensing
D.A. Robbisn

110 Deep cut: ground control and worker safety in coal mines
E.R. Bauer and C J. Bise