

DAFTAR PUSTAKA

- Arribas, A., Mathur, R., Megaw, P., & Arribas, I. (2020). The Isotopic Composition of Silver in Ore Minerals. *Geochemistry, Geophysics, Geosystems*, 21(8). <https://doi.org/10.1029/2020GC009097>
- Arsah, I. F., Idrus, A., Handini, E., Ilmawan, I., Faruqi, M. D., & Sukadana, I. G. (2023a). *Geology and mineralogy of the Cihaur Pb-Zn skarn in Sukabumi Regency, West Java, Indonesia: A preliminary study*. 060005. <https://doi.org/10.1063/5.0126047>
- Arsah, I. F., Idrus, A., Handini, E., Ilmawan, I., Faruqi, M. D., & Sukadana, I. G. (2023b). *Geology and mineralogy of the Cihaur Pb-Zn skarn in Sukabumi Regency, West Java, Indonesia: A preliminary study*. 060005. <https://doi.org/10.1063/5.0126047>
- Badan Geologi. (2019). *Potensi Logam Tanah Jarang Di Indonesia*. 1–144. <https://geologi.esdm.go.id/index.php/media-center/potensi-logam-tanah-jarang-di-indonesia>
- Badan Geologi. (2022). *Potensi Dan Ketahanan Cadangan Mineral Kritis Dan Strategis (Nikel, Tembaga, Emas Dan Perak Timah, Bauksit)*.
- Barton, M. D., & Young, S. (2002). Non-pegmatitic Deposits of Beryllium: Mineralogy, Geology, Phase Equilibria and Origin. *Reviews in Mineralogy and Geochemistry*, 50(1), 591–691. <https://doi.org/10.2138/rmg.2002.50.14>
- Belissont, R., Boiron, M.-C., Luais, B., & Cathelineau, M. (2014). LA-ICP-MS analyses of minor and trace elements and bulk Ge isotopes in zoned Ge-rich sphalerites from the Noailhac – Saint-Salvy deposit (France): Insights into incorporation mechanisms and ore deposition processes. *Geochimica et Cosmochimica Acta*, 126, 518–540. <https://doi.org/10.1016/j.gca.2013.10.052>
- Bethke, P. M., & Barton, P. B. (1971). Distribution of some minor elements between coexisting sulfide minerals. *Economic Geology*, 66(1), 140–163. <https://doi.org/10.2113/gsecongeo.66.1.140>
- Beus, A. A., Grigorian, S. V., & Plant, J. (1978). Geochemical Exploration Methods for Mineral Deposits (transl. from Russian. *Mineralogical Magazine*, 42(322), 303–304. <https://doi.org/10.1180/minmag.1978.042.322.36>
- Bortnikov, N. S., Volkov, A. V., Galyamov, A. L., Vikent'ev, I. V., Aristov, V. V., Lalomov, A. V., & Murashov, K. Yu. (2016). Mineral resources of high-tech metals

- in Russia: State of the art and outlook. *Geology of Ore Deposits*, 58(2), 83–103. <https://doi.org/10.1134/S1075701516020021>
- Budiawan, S. R. H., Bargawa, W. S., & Idrus, A. (2022). Karakteristik Mineralisasi Dan Geokimia Skarn Pb-Zn-Cu-Ag, Ruwai, Kabupaten Lamandau Provinsi Kalimantan Tengah. *Jurnal Sumberdaya Bumi Berkelanjutan (SEMITAN)*, 1(1), 136–143. <https://doi.org/10.31284/j.semitan.2022.3238>
- Burnham, A. D., & Berry, A. J. (2017). Formation of Hadean granites by melting of igneous crust. *Nature Geoscience*, 10(6), 457–461. <https://doi.org/10.1038/ngeo2942>
- Cabanis, B., & Lecolle, M. (1989). Le diagramme La/10–Y/15–Nb/8: un outil pour la discrimination des series volcaniques et la mise en evidence des processus de melange et/ou de contamination crustale. *Comptes Rendus de l'Academie Des Sciences. Serie 2*, 309, 2023–2029. <https://pascal-francis.inist.fr/vibad/index.php?action=getRecordDetail&idt=6648552>
- Center, N. M. I. (2023). *Antimony Statistics and Information*. USGS Science for a Changing World. (<https://www.usgs.gov/centers/national-minerals-information-center/antimony-statistics-and-information>)
- Commission, E. (2020). *EUROPE 2020 A European strategy for smart, sustainable and inclusive growth*. European Commission. <https://ec.europa.eu/eu2020/pdf/COMPLET%20EN%20BARROSO%20%20%20007%20-%20Europe%202020%20-%20EN%20version.pdf>
- Cook, N. J., Ciobanu, C. L., Pring, A., Skinner, W., Shimizu, M., Danyushevsky, L., Saini-Eidukat, B., & Melcher, F. (2009). Trace and minor elements in sphalerite: A LA-ICPMS study. *Geochimica et Cosmochimica Acta*, 73(16), 4761–4791. <https://doi.org/10.1016/j.gca.2009.05.045>
- Corbett, G. J., & Leach, T. M. (1998). *Southwest Pacific Rim Gold-Copper Systems* (Vol. 6). Society of Economic Geologists. <https://doi.org/10.5382/SP.06>
- Costagliola, P., Di Benedetto, F., Benvenuti, M., Bernardini, G. P., Cipriani, C., Lattanzi, P. F., & Romanelli, M. (2003). Chemical speciation of Ag in galena by EPR spectroscopy. *American Mineralogist*, 88(8–9), 1345–1350. <https://doi.org/10.2138/am-2003-8-918>
- Craig, J. R. ., & Vaughan, D. J. . (1994). *Ore microscopy and ore petrography*. Wiley.
- Dana, C. D. P., Agangi, A., Idrus, A., Chelle-Michou, C., Lai, C. K., Ishida, M., Guillong, M., González-Álvarez, I., Takahashi, R., Yano, M., Mimura, K., Ohta, J., Kato, Y., Simbolon, D. R., & Xia, X. P. (2023). The Age and Origin of the Ruwai Polymetallic Skarn Deposit, Indonesia: Evidence of Cretaceous Mineralization in

- the Central Borneo Metallogenic Belt. *Economic Geology*, 118(6), 1341–1370. <https://doi.org/10.5382/econgeo.5009>
- Dana, C. D. P., Agangi, A., Takahashi, R., Idrus, A., Lai, C. K., & Nainggolan, N. A. (2022). Element mobility during formation of the Ruwai Zn-Pb-Ag skarn deposit, Central Borneo, Indonesia. *Resource Geology*, 72(1). <https://doi.org/10.1111/rge.12290>
- Dana, C., Simbolon, D. R., Dana, C. D. P., & Whitehouse, L. E. (2019). *Metallogenic Model of the Ruwai Fe-Zn-Pb-Ag Skarn Deposit, Central Borneo: understanding the complexity from proximal to distal basemetal mineralization*. <https://www.researchgate.net/publication/336086262>
- Deady, E., Moon, C., Moore, K., Goodenough, K. M., & Shail, R. K. (2022). Bismuth: Economic geology and value chains. In *Ore Geology Reviews* (Vol. 143). Elsevier B.V. <https://doi.org/10.1016/j.oregeorev.2022.104722>
- Direktorat Jenderal Mineral Dan Batubara. (2025, May 24). *Harga Mineral dan Batubara Acuan*. Direktorat Jendral Mineral dan Batubara, Kementerian Energi dan Sumber Daya Mineral. https://www.minerba.esdm.go.id/harga_acuan
- Dirjen Minerba Kementerian, ESDM. (2020). *Kajian Pengelolaan Mineral dan Batubara Serta Mineral Strategis di Kawasan Regional, Asia dan Global untuk Industri Strategis Nasional Sub Direktorat Penyiapan Program Mineral dan Batubara Direktorat Pembinaan Program Mineral dan Batubara Direktorat Jenderal Mineral dan Batubara Kementerian Energi dan Sumber Daya Mineral 2020*.
- Dupuis, C., & Beaudoin, G. (2011). Discriminant diagrams for iron oxide trace element fingerprinting of mineral deposit types. *Mineralium Deposita*, 46, 319–335.
- Dwi Budiarto, A., Santoso, E., & Akbar, M. A. (2019). *Sistem Rekomendasi Pemilihan Benih Varietas Unggul Padi Menggunakan Metode Fuzzy Analytical Hierarchy Process-Simple Additive Weighting* (Vol. 3, Issue 2). <http://j-ptiik.ub.ac.id>
- Eshel, T., Tirosh, O., Yahalom-Mack, N., Gilboa, A., & Erel, Y. (2022). Silver Isotopes in Silver Suggest Phoenician Innovation in Metal Production. *Applied Sciences*, 12(2), 741. <https://doi.org/10.3390/app12020741>
- Faizy, S. M., Ebert, D., Kontonikas-Charos, A., Burisch, M., Idrus, A., Ernowo, E., Widyastanto, A., & Frenzel, M. (2025). *Behaviour of the Critical Elements as, Bi, In, Sb, and Te During Processing of a Skarn Ore: A Case Study of the Ruwai Zn-Pb-Ag Deposit, Central Kalimantan, Indonesia*. <https://doi.org/10.2139/ssrn.5136925>
- Foard, E. E., & Shawe, D. R. (1989). The Pb-Bi-Ag-Cu-(Hg) Chemistry Of Galena And Some Associated Sulfosal Ts: A Review And Some New Data From Colorado, California And Pennsylvania. In *Canadian Mineralogist* (Vol. 27).

- Gargul, K., Boryczko, B., Handzlik, P., Noga, P., & Palimaka, P. (2022). Kinetics of copper leaching from direct-to-blister copper flash smelting slag by sulfuric acid. *Archives of Civil and Mechanical Engineering*, 23(1), 29. <https://doi.org/10.1007/s43452-022-00567-6>
- Gasparrini, C., & Lowell, G. R. (1985). Silver-Bearing Inclusions In “Argentiferous” Galena From The Silvermine District In Southeastern Missouri. In *Canadian Mineralogist* (Vol. 23).
- George, L., Cook, N. J., Cristiana, C., & Wade, B. P. (2015). Trace and minor elements in galena: A reconnaissance LA-ICP-MS study. *American Mineralogist*, 100(2–3), 548–569. <https://doi.org/10.2138/am-2015-4862>
- H. Budiawan, S. R., Bargawa, W. S., & Idrus, A. (2022). Karakteristik Mineralisasi Dan Geokimia Skarn Pb-Zn-Cu-Ag, Ruwai, Kabupaten Lamandau Provinsi Kalimantan Tengah. *Jurnal Sumberdaya Bumi Berkelanjutan (SEMITAN)*, 1(1), 136–143. <https://doi.org/10.31284/j.semitan.2022.3238>
- Han, S., Lee, S., & Jang, K.-S. (2024). Epoxy-Based Copper (Cu) Sintering Pastes for Enhanced Bonding Strength and Preventing Cu Oxidation after Sintering. *Polymers*, 16(3), 398. <https://doi.org/10.3390/polym16030398>
- Harijoko, A., Sanematsu, K., Duncan, R. A., Prihatmoko, S., & Watanabe, K. (2004). Timing of the Mineralization and Volcanism at Cibaliung Gold Deposit, Western Java, Indonesia. *Resource Geology*, 54(2), 187–195. <https://doi.org/10.1111/j.1751-3928.2004.tb00199.x>
- Heo, S.-Y., Oh, J.-H., Yang, K.-H., Hwang, J.-Y., & Park, S.-G. (2012). The Relationship between the Mineral Characteristics and Spectral Induced Polarization for the Core Rock Samples from the Gagok Skarn Deposit. *Economic and Environmental Geology*, 45(4), 351–363. <https://doi.org/10.9719/EEG.2012.45.4.351>
- Hirzel, J., Retamal-Salgado, J., Walter, I., & Matus, I. (2019). Residual effect of cadmium applications in different crop rotations and environments on durum wheat cadmium accumulation. *Journal of Soil and Water Conservation*, 74(1), 41–50. <https://doi.org/10.2489/jswc.74.1.41>
- Idrus, A., Anastasia, I., Titisari, D., Warmada, W., Donny, L., Jurusan, S., & Geologi, T. (2007). *Eksplorasi Sumberdaya Mineral*.
- Idrus, A., Dana, C. D. P., Lai, C. K., Agangi, A., Takahashi, R., & Rajagukguk, E. H. (2023). Proximal to distal geochemical variations of the Ruwai polymetallic skarn deposit, Central Borneo, Indonesia: Insights from sulfides chemistry and implications to exploration. *Journal of Geochemical Exploration*, 246. <https://doi.org/10.1016/j.gexplo.2023.107161>

- Idrus, A., Setijadji, L. D., & Thamba, F. (2011). Geology and Characteristics of Pb-Zn-Cu-Ag Skarn Deposit at Ruwai, Lamandau Regency, Central Kalimantan. *Indonesian Journal on Geoscience*, 6(4), 191–201. <https://doi.org/10.17014/ijog.6.4.191-201>
- Idrus, A., & Wardhani, R. (2011). *Mineralogi Dan Kimia Mineral Alterasi Prograde Dan Retrograde Endapan Skarn Pb-Zn-Cu-(Ag) Ruwai, Kabupaten Lamandau, Provinsi Kalimantan Tengah, Indonesia*.
- International Energy Agency. (2023). *Policy on initiatives for ensuring stable supply of critical minerals*. https://www.meti.go.jp/policy/economy/economic_security/metal/torikumihoshin.pdf
- Irfan, M. (2024). Biosorption of cadmium from industrial waste. *Journal of Biochemical Sciences*. <https://doi.org/10.61577/jbs.2024.100004>
- Irzon, R., & Kurnia. (2017). *Pengembangan Metode ICP-MS Dalam Pengukuran Kadar Pb Pada Contoh Batuan Improving ICP-MM Method On Pb Content Measurement In Rock Samples*.
- Jadaa, W., & Mohammed, H. (2023). Heavy Metals – Definition, Natural and Anthropogenic Sources of Releasing into Ecosystems, Toxicity, and Removal Methods – An Overview Study. *Journal of Ecological Engineering*, 24(6), 249–271. <https://doi.org/10.12911/22998993/162955>
- Jiang, B., Wang, D., Chen, Y., Zhang, T., Pu, X., Ma, W., Wang, Y., Wu, G., Wu, L., Zhang, T., Li, X., Yan, J., Zuo, Y., Sun, H., & Li, Z. (2022). Classification, metallogenesis and exploration of silver deposits in Daxing'anling of Inner Mongolia and its adjacent areas. *China Geology*, 5(0), 1–19. <https://doi.org/10.31035/cg2022005>
- Jiang, J., Gao, S., Zheng, Y., Lentz, D. R., Huang, J., Liu, J., Tian, K., & Jiang, X. (2020). Geological, geochemical, and mineralogical constraints on the genesis of the polymetallic pb-zn-rich nuocang skarn deposit, western gangdese, tibet. *Minerals*, 10(10), 1–34. <https://doi.org/10.3390/min10100839>
- Kelley, K. D., Leach, D. L., Johnson, C. A., Clark, J. L., Fayek, M., Slack, J. F., Anderson, V. M., Ayuso, R. A., & Ridley, W. I. (2004). Textural, Compositional, and Sulfur Isotope Variations of Sulfide Minerals in the Red Dog Zn-Pb-Ag Deposits, Brooks Range, Alaska: Implications for Ore Formation. *Economic Geology*, 99(7), 1509–1532. <https://doi.org/10.2113/gsecongeo.99.7.1509>
- Keputusan Menteri Energi Sumber Daya Mineral No 296 K. (2023, September 14). Kepmen ESDM No 296 K_MB 01_MEM B_2023. *JDIH Kementrian ESDM*, 1–5. https://jdih.esdm.go.id/storage/document/Kepmen%20ESDM%20No%20296K_MB_01_MEM_B_2023.pdf

- Keputusan Menteri Energi Sumber Daya Mineral No 1827 K 30. (2018). *Keputusan Menteri Energi dan Sumber Daya Mineral Nomor 1827 K/30/MEM/2018 tentang Pedoman Pelaksanaan Kaidah Teknik Pertambangan yang Baik*. <https://jdih.esdm.go.id/dokumen/view?id=1805>
- Kwak, T. A. P. (1986). Fluid inclusions in skarns (carbonate replacement deposits). *Journal of Metamorphic Geology*, 4(4), 363–384. <https://doi.org/10.1111/j.1525-1314.1986.tb00358.x>
- Llovet, X. (2018). Electron Probe Microanalysis. In *Reference Module in Chemistry, Molecular Sciences and Chemical Engineering*. Elsevier. <https://doi.org/10.1016/B978-0-12-409547-2.14369-0>
- Lockington, J. A., Cook, N. J., & Ciobanu, C. L. (2014). Trace and minor elements in sphalerite from metamorphosed sulphide deposits. *Mineralogy and Petrology*, 108(6), 873–890. <https://doi.org/10.1007/s00710-014-0346-2>
- Lueth, V. W., Megaw, P. K. M., Pingitore, N. E., & Goodell, P. C. (2000). Systematic Variation in Galena Solid-Solution Compositions at Santa Eulalia, Chihuahua, Mexico. *Economic Geology*, 95(8), 1673–1687. <https://doi.org/10.2113/gsecongeo.95.8.1673>
- Lustrino, M., Bonin, B., Doroshkevich, A., Guo, Z., Kerr, A., Heilborn, M., Irving, T., Ivanov, A., Mitchell, R., Nakagawa, M., Natland, J. H., Pearce, J. A., Smith, B. S., Srivastava, R. K., Tappe, S., Wilson, M., & Zellmer, G. (2020). *IUGS Task Group on Igneous Rocks TGIR*. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.iugs.org/_files/ugd/f1fc07_b990fcac97df459cb2725a8983caa6f1.pdf?index=true
- MAC. (2024). *Calibration Standard for Electron Probe Microanalysis (EPMA) Engineering Research Innovation Center (ERIC)*. <https://micro-analysis.com/standards/universal/sulphide-standard.asp>
- Marshall, D. D., Mumin, A. H., Anglin, C. D., & Division, G. A. of Canada. M. D. (2011). *Ore Mineral Atlas*. Geological Association of Canada, Mineral Deposits Division. <https://books.google.co.id/books?id=-ixQlwEACAAJ>
- McDonough, W. F., & Sun, S. -s. (1995). The composition of the Earth. *Chemical Geology*, 120(3–4), 223–253. [https://doi.org/10.1016/0009-2541\(94\)00140-4](https://doi.org/10.1016/0009-2541(94)00140-4)
- Megaw, P. K. M., Ruiz, J., & Titley, S. R. (1988). High-temperature, carbonate-hosted Ag-Pb-Zn(Cu) deposits of northern Mexico. *Economic Geology*, 83(8), 1856–1885. <https://doi.org/10.2113/gsecongeo.83.8.1856>
- Meinert, L. (2020). Geology, Policy and Wine – The Intersection of Science and Life. *Geochemical Perspectives*, 1–133. <https://doi.org/10.7185/geochempersp.9.1>

- Meinert, L. D. (1987). Skarn zonation and fluid evolution in the Groundhog Mine, Central mining district, New Mexico. *Economic Geology*, 82(3), 523–545. <https://doi.org/10.2113/gsecongeo.82.3.523>
- Meinert, L. D. (1992). Skarns and skarn deposits. *Geoscience Canada*.
- Meinert, L. D., Dipple, G. M., & Nicolescu, S. (2005). World Skarn Deposits. In *Economic Geology 100th Anniversary*. www.wsu.edu/~
- Meinert, L. D., Hefton, K. K., Mayes, D., & Tasiran, I. (1997). Geology, zonation, and fluid evolution of the Big Gossan Cu-Au skarn deposit, Ertsberg District, Irian Jaya. *Economic Geology*, 92(5), 509–534. <https://doi.org/10.2113/gsecongeo.92.5.509>
- Michail, C., Koukou, V., Martini, N., Saatsakis, G., Kalyvas, N., Bakas, A., Kandarakis, I., Fountos, G., Panayiotakis, G., & Valais, I. (2020). Luminescence Efficiency of Cadmium Tungstate (CdWO₄) Single Crystal for Medical Imaging Applications. *Crystals*, 10(6), 429. <https://doi.org/10.3390/cryst10060429>
- Milot, J., Blichert-Toft, J., Sanz, M. A., Malod-Dognin, C., Télouk, P., & Albarède, F. (2022). Silver isotope and volatile trace element systematics in galena samples from the Iberian Peninsula and the quest for silver sources of Roman coinage. *Geology*, 50(4), 422–426. <https://doi.org/10.1130/G49690.1>
- Misra, K. C. (2000). *Understanding Mineral Deposits*. Springer Netherlands. <https://doi.org/10.1007/978-94-011-3925-0>
- Mollaei, H., Yaghubpur, A. M., & Sharifiyan Attar, R. (2009). Geology and geochemistry of skarn deposits in the northern part of Ahar batholith, East Azarbaijan, NW Iran. In *Iranian Journal of Earth Sciences* (Vol. 1).
- Moon, C. J., Evans, A. M., & Whateley, M. K. G. (2006). *Introduction to Mineral Exploration Second Edition* (W. L. Barrett, T. Bell, A. M. Evans, J. Milsom, C. J. Moon, B. C. Scott, & M. K. G. Whateley, Eds.; 2nd ed.). Blackwell Publishing.
- Morrison, K. (1997). Important hydrothermal minerals and their significance. *Geothermal and Mineral Service Division*, 7.
- Murakami, H., & Ishihara, S. (2013). Trace elements of Indium-bearing sphalerite from tin-polymetallic deposits in Bolivia, China and Japan: A femto-second LA-ICPMS study. *Ore Geology Reviews*, 53, 223–243. <https://doi.org/10.1016/j.oregeorev.2013.01.010>
- Neumann, U. (2020). *Guide For The Microscopical Identification Of Ore And Gangue Minerals Mineral Profiles With Photomicrographs*. <https://doi.org/http://dx.doi.org/10.15496/publikation-38866>

- Nurkhamim. (2010). Pemetaan Sebaran Unsur Pb Menggunakan Pendekatan Matematis (Studi Kasus di Block Mandagang-Muara Sipongi, Sumatera Utara). *Jurnal Ilmu Kebumihan Teknologi Mineral*, 23, 35–43.
- Nurkhamim. (2011). Optimasi Pengolahan Dan Interpretasi Peta Menggunakan Kombinasi Fungsi Matematika Dan Statistika Untuk Penentuan Daerah Prospek Mineral. In P. Wicaksono, P. Danoedoro, & A. Yananto (Eds.), *Simposium Nasional Sains Geoinformas* (pp. 53–60). PUSPICS Fakultas Geografi.
- Nurkhamim, Idrus, A., Harijoko, A., & Endrayanto, I. (2015). Pengurangan Resiko Terhadap Penetapan Daerah Target Eksplorasi Mineral Dengan Menggunakan Regresi Berganda (Polynomial Regression N-Orde). *Proceeding, Seminar Nasional Kebumihan Ke-8*, 641–653.
- Nursalam. (2020). *Statistika Terapan Univariat Dan Multivariat*. <http://ebooks.uin-alaudidin.ac.id/>
- OREAS623. (2015). *Volcanic Hosted Massive Sulphide Zn-Pb-Cu-Ag-Au Ore Certified Reference Material*. [chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.oreas.com/downloads/?fileId=867](https://www.oreas.com/downloads/?fileId=867)
- Pearce, J. A. (1996). A user's guide to basalt discrimination diagrams: Geological Association of Canada Short Course. *Geological Association of Canada*, 12(Trace element geochemical of volcanic rock, Applications for massive sulphide exploration), 79–113. <file:///D:/1.%20MAGISTER%20TEKNIK%20PERTAMBANGAN%20UPNY/S%20EMESTER%205/3.%20Referensi/Pearce%20-%20A%20User's%20Guide%20to%20Basalt%20Discrimination%20Diagrams.pdf>
- Pirajno, F. (2009). Hydrothermal Systems and the Biosphere. In *Hydrothermal Processes and Mineral Systems* (pp. 1025–1096). Springer Netherlands. https://doi.org/10.1007/978-1-4020-8613-7_10
- Pirajno, F. (2013). *Effects of Metasomatism on Mineral Systems and Their Host Rocks: Alkali Metasomatism, Skarns, Greisens, Tourmalinites, Rodingites, Black-Wall Alteration and Listvenites* (pp. 203–251). Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-642-28394-9_7
- PT. Generasi Muda Bersatu. (2020). *Laporan Kegiatan Eksplorasi IUP Gelena DMP*.
- Renock, D., & Becker, U. (2011). A first principles study of coupled substitution in galena. *Ore Geology Reviews*, 42(1), 71–83. <https://doi.org/10.1016/j.oregeorev.2011.04.001>

- Rice, S., Cuthbert, S., Hursthouse, A., & Broetto, G. (2017). *Low-Impact Exploration for Gold in the Scottish Caledonides, UK*. https://presentations.copernicus.org/EGU2017/EGU2017-9531_presentation.pdf
- Ridley, J. (2013). *Ore deposit geology*. Cambridge University Press.
- Robb, L. (2005). *Introduction To Ore-Forming Processes*.
- Rollinson, H. R. (2014). *Using Geochemical Data*. Routledge. <https://doi.org/10.4324/9781315845548>
- Rosana, M. F., & Matsueda, H. (2002). Cikidang Hydrothermal Gold Deposit in Western Java, Indonesia. *Resource Geology*, 52(4), 341–352. <https://doi.org/10.1111/j.1751-3928.2002.tb00144.x>
- Sanz, J., Tomasa, O., Jimenez-Franco, A., & Sidki-Rius, N. (2022). *Silver (Ag) [Z = 47]* (pp. 197–200). https://doi.org/10.1007/978-3-030-85889-6_49
- Setiawan, A. (2024). Pengaruh dan Hubungan Timbal Balik antara Sektor Pertambangan Konstruksi: Studi Kasus Manokwari Selatan. *Jurnal GEOSAPTA*, 10(1), 85. <https://doi.org/10.20527/jg.v10i1.17066>
- Shin, S., Park, S., & Shin, D. (2014). Spectral Induced Polarization Response Characterization of Pb-Zn Ore Bodies at the Gagok mine. *Geophysics and Geophysical Exploration*, 17(4), 247–252. <https://doi.org/10.7582/GGE.2014.17.4.247>
- Simbolon, D. R., Cendi, D. P., & Laurie, E. W. (2019). Metallogenic Model of Ruwai Fe-Zn-Pb-Ag Skarn Deposit, Central Kalimantan: Understanding the Complexity from Proximal to Distal Base Metal Mineralization. *Proceeding of MGEI Unlocking Concealed and Complex Deposit, Hal*, 115–122.
- Stojanovic, J., Radosavljevic, S., Tosovic, R., Pacevski, A., Radosavljevic-Mihajlovic, A., Kasic, V., & Vukovic, N. (2018). A review of the Pb-Zn-Cu-Ag-Bi-W polymetallic ore from the Rudnik orefield, Central Serbia. *Geoloski Anali Balkanskoga Poluostrva*, 79(1), 47–69. <https://doi.org/10.2298/GABP1879047S>
- Sun, S. -s., & McDonough, W. F. (1989). Chemical and isotopic systematics of oceanic basalts: implications for mantle composition and processes. *Geological Society, London, Special Publications*, 42(1), 313–345. <https://doi.org/10.1144/GSL.SP.1989.042.01.19>
- Suryawan, E. H., Idrus, A., Suyanto, I., Ilmawan, I., & Faruqi, M. D. (2023). Mineralogy and Ore Characteristics of the Kujang Pb-Zn Skarn Deposit, Sukabumi Regency, West Java. *Journal of Applied Geology*, 8(2), 76. <https://doi.org/10.22146/jag.78105>

- Sverdrup, H. U., Olafsdottir, A. H., & Ragnarsdottir, K. V. (2019). On the long-term sustainability of copper, zinc and lead supply, using a system dynamics model. *Resources, Conservation & Recycling: X*, 4, 100007. <https://doi.org/10.1016/j.rcrx.2019.100007>
- Tooth, B. (2013). *The Hydrothermal Chemistry of Bismuth and The Liquid Bismuth Collector Model*. www.lab-initio.com
- Tun, M. M., Wayan, I. W., Idrus, A., Harijoko, A., Verdiansyah, O., & Watanabe, K. (2018). *Fluid Inclusion Studies of the Cijulang High-sulfidation Epithermal Prospect, West Java, Indonesia Iwayan Warmada Fluid Inclusion Studies of the Cijulang High-sulfidation Epithermal Prospect, West Java, Indonesia*. <https://doi.org/10.7763/IPCBE>
- Udubaşa, G. (1984). Iron Sulfides in Sedimentary Rocks Some Occurrences in Romania. In *Syngeneses and Epigenesis in the Formation of Mineral Deposits* (pp. 28–35). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-70074-3_4
- USGS. (2023). *Mineral Commodity Summaries 2023*. <https://doi.org/10.3133/mcs2023>
- Whitney, D. L., & Evans, B. W. (2010). Abbreviations for names of rock-forming minerals. *American Mineralogist*, 95(1), 185–187. <https://doi.org/10.2138/am.2010.3371>
- Wilschefski, S., & Baxter, M. (2019). Inductively Coupled Plasma Mass Spectrometry: Introduction to Analytical Aspects. *Clinical Biochemist Reviews*, 40(3), 115–133. <https://doi.org/10.33176/AACB-19-00024>
- Wu, C.-Q., Zhang, Z.-W., Zheng, C.-F., & Yao, J.-H. (2015). Mid-Miocene (~17 Ma) quartz diorite porphyry in Ciemas, West Java, Indonesia, and its geological significance. *International Geology Review*, 57(9–10), 1294–1304. <https://doi.org/10.1080/00206814.2014.908748>
- Xiang, Y., Lu, L., Yan, F., Sengupta, D., Rudolf, P., Kottapalli, A. G. P., & Pei, Y. (2024). Tuning the crystallinity of titanium nitride on copper-embedded carbon nanofiber interlayers for accelerated electrochemical kinetics in lithium–sulfur batteries. *Carbon Energy*, 6(6). <https://doi.org/10.1002/cey2.450>
- Xing, B., Mao, J., Xiao, X., Liu, H., Jia, F., Wang, S., Huang, W., & Li, H. (2021). Genetic discrimination of the Dingjiashan Pb-Zn deposit, SE China, based on sphalerite chemistry. *Ore Geology Reviews*, 135. <https://doi.org/10.1016/j.oregeorev.2021.104212>
- Ye, L., Cook, N. J., Ciobanu, C. L., Yuping, L., Qian, Z., Tiegeng, L., Wei, G., Yulong, Y., & Danyushevskiy, L. (2011). Trace and minor elements in sphalerite from base metal deposits in South China: A LA-ICPMS study. *Ore Geology Reviews*, 39(4), 188–217. <https://doi.org/10.1016/j.oregeorev.2011.03.001>

- Yuningsih, E. T., Matsueda, H., Setyaraharja, E. P., & Rosana, M. F. (2012). The Arinem Te-Bearing Gold-Silver-Base Metal Deposit, West Java, Indonesia. *Resource Geology*, 62(2), 140–158. <https://doi.org/10.1111/j.1751-3928.2012.00185.x>
- Zeng, N., Izawa, E., Motomura, Y., & Lai, L. (2000). Silver Minerals And Paragenesis In The Kangjiawan Pb-Zn-Ag-Au Deposit Of The Shuikoushan Mineral District, Hunan Province, China. In *The Canadian Mineralogist* (Vol. 38).
- Zhang, Z., Wu, C., Yang, X., Zheng, C., & Yao, J. (2015a). The trinity pattern of Au deposits with porphyry, quartz–sulfide vein and structurally-controlled alteration rocks in Ciemas, West Java, Indonesia. *Ore Geology Reviews*, 64, 152–171. <https://doi.org/10.1016/j.oregeorev.2014.07.003>
- Zhang, Z., Wu, C., Yang, X., Zheng, C., & Yao, J. (2015b). The trinity pattern of au deposits with porphyry, quartz-sulfide vein and structurally-controlled alteration rocks in Ciemas, West Java, Indonesia. *Ore Geology Reviews*, 64(1), 152–171. <https://doi.org/10.1016/j.oregeorev.2014.07.003>
- ZHENG, C., ZHANG, Z., WU, C., & YAO, J. (2017). Genesis of the Ciemas Gold Deposit and Relationship with Epithermal Deposits in West Java, Indonesia: Constraints from Fluid Inclusions and Stable Isotopes. *Acta Geologica Sinica - English Edition*, 91(3), 1025–1040. <https://doi.org/10.1111/1755-6724.13322>