REFERENCES

- [Assavapatchara and Kitisarn, 2001] Assavapatchara, S. and Kitisarn, N., 2001, Geological map of Thailand 1: 50,000 Sheet 4943IV Amphoe Thung Saliam, Department of Mineral Resources, Thailand.
- [Barber et al., 2005] Barber, A.J., Crow, M.J., and Milsom, J.S., 2005, Sumatra: Geology Resources and Tectonic Evolution, Geological Society, London, Memoir, pp. 31.
- [Barr and MacDonald, 1991] Barr, S.M., and MacDonald, A.S., 1991, Toward a late Palaeozoic–early Mesozoic tectonic model for Thailand, Journal of Thai Geosciences, v. 1, pp. 11–22.
- [Barr et al., 1990] Barr, S.M., Tantisukrit, C., Yaowanoiyothin, W., and Macdonald, A.S., 1990, Petrology and tectonic implications of Upper Palaeozoic volcanic rocks of the Chiang Mai belt, northern Thailand, Journal of Southeast Asian Earth Sciences, v. 4, pp. 37–47.
- [Barr et al., 2000] Barr, S.M., Macdonald, A.S., Dunning, G.R., Ounchanum, P., and Yaowanoiyothin, W., 2000, Petrochemistry, U-Pb (zircon) age, and palaeotectonic setting of the Lampang volcanic belt, northern Thailand, Journal of the Geological Society of London, v. 157, pp. 553-563.
- [Barr et al., 2006] Barr, S.M., Macdonald, A. S., Ounchanum, P., and Hamilton, M. A., 2006, Age, tectonic setting and regional implications of the Chiang Khong volcanic suite, northern Thailand, The Geological Society of London, v. 163, no. 6, pp. 1037-1046.

- [Best et al., 2001] Best, M.G. and Christiansen, E.H., 2001, Igneous Petrology, Blackwell Science, pp. 458.
- [Booden et al., 2010] Booden, M.A., Smith, I.E.M., Mauk, J.L., and Black, P.M., 2010, Evolving volcanism at the tip of a propagating arc: The earliest high-Mg andesites in northern New Zealand, Journal of Volcanology and Geothermal Research, v. 195, pp. 83-96.
- [Boonsoong et al., 2011] Boonsoong, A., Panjasawatwong, Y., and Metparsopsan, K., 2011, Petrochemistry and tectonic setting of mafic volcanic rocks in the Chon Daen – Wang Pong area, Phetchabun, Thailand, Island Arc, v. 20, pp. 107-124.
- [Boripatkosol et al., 1987(a)] Boripatkosol, S., Jiemton, S., Vimuktanandana, S., and Sudthirak, C., 1987(a), Geological map of Thailand 1: 50,000 Sheet 4842I Ban Nam Dip, Department of Mineral Resources, Thailand.
- [Boripatkosol et al., 1987(b)] Boripatkosol, S., Jiemton, S., Vimuktanandana, S., and Sudthirak, C., 1987(b), Geological map of Thailand 1: 50,000 Sheet 4942IV Ban Lan Hoi, Department of Mineral Resources, Thailand.
- [Boripatkosol et al., 1989(a)] Boripatkosol, S., Vimuktanandana, S., and Sangmukda, T., 1989(a), Geological map of Thailand 1: 50,000 Sheet 4843IV Amphoe Mae Phrik, Department of Mineral Resources, Thailand.
- [Boripatkosol et al., 1989(b)] Boripatkosol, S., Vimuktanandana, S., and Sangmukda, T., 1989(b), Geological map of Thailand 1: 50,000 Sheet 4843III Amphoe Ban Tak, Department of Mineral Resources, Thailand.
- [Briqueu et al., 1984] Briqueu, L., Bougault, H., and Joron, J.L., 1984, Quantification of Nb, Ta, Ti and V anomalies in magmas associated

with subduction zones: petrogenetic implications, Earth and Planetary Science Letters, v. 68, pp. 297-308.

- [Bunopas, 1981] Bunopas, S., 1981, Paleogeographic history of western Thailand and adjacent parts of Southeast Asia—a plate tectonics interpretation: Unpublished Ph.D. Dissertation, Victoria University of Wellington, New Zealand, Geological Survey Division, Department of Mineral Resources, Thailand, pp. 810.
- [Chaodumrong and Rao, 1992] Chaodumrong, P., and Rao, P., 1992, Depositional environments of Triassic carbonates, Lampang Group, central north Thailand, *in* Piancharoen, C., ed.-in-chief, *In Proceedings*, the national conference on geologic resources of Thailand: Potential for future development: Bangkok, Thailand, 1992, Department of Mineral Resources, Ministry of Industry, p. 355-367.
- [Chaodumrong, 1992] Chaodumrong, P., 1992, New evidences in stratigraphic sequences of the Lampang Group: Department of Mineral Resources, Bangkok, Mineral Gazette no 37, v. 8, pp. 20-24.
- [Charusiri et al., 1999] Charusiri, P., Xu, X., Pan, G., Daorerk, V., Zhuang, Z., and Li, X., 1999, Evolution of northern Thailand and southern Yunnan: Implications for tectonic history of mainland Southeast Asia and Paleo-Mesotethys evolution, *In proceedings*, The International Symposium on Shallow Tethys (ST) 5, Chiang Mai, Thailand, Chiang Mai University, pp. 242-264.
- [Charusiri et al., 2015] Charusiri, P., Rangabpitch, W., Veeravinantanakul, A., Kumrangwat, S., and Hisada, K.i., 2015, The sukhothai and Loei Belts: Evidence from geological, geophysical, and geochemical syntheses, *In Proceedings*, The 4th Symposium of the International Geoscience Programme (IGCP) 589, Bangkok, Thailand, pp. 117.
- [Chuaviroj et al., 1992] Chuaviroj, S., Charoenpravat, A., Hinthong, C., and Chonglakmanee, C., 1992, Geological map of Thailand 1: 50,000

Sheet 4843I Ban Huai Rin, Department of Mineral Resources, Thailand.

- [Class and le Roex, 2008] Class, C., le Roex, A.P., 2008, Ce anomalies in Gough Islands lavas — trace element characteristics of a recycled sediment component, Earth Planet Science Letter, v. 265, pp. 475–486.
- [Cox et al., 1979] Cox, K. G., Bell, J.D., and Pankhurst, R.J., 1979, The Interpretation of Igneous rocks. George Allen & Unwin LTD, London, Great Britain, pp. 450.
- [Crawford and Panjasawatwong, 1996] Crawford, A.J., and Panjasawatwong, Y., 1996, Ophiolite, ocean crust, and the Nan suture in NE Thailand, *In Proceedings*, The International Symposium on Lithoshere Dynamics of East Asia, Taipei, Taiwan, pp. 84-89.
- [Della-Pasqua and Zaw 2002] Della-Pasqua, F.N., and Zaw, K., 2002, Chemical affinities of Loei belt volcanic intrusive rocks, Central Thailand, In Proceedings, The Sixteenth Australian Geological Convention, Adelaide, Australia, abstracts. v. 67, pp. 255.
- [Demant et al., 2007] Demant, A., Suárez, M., and De la Cruz, R., 2007, Geochronology and petrochemistry of Late Cretaceous-(?)Paleogene volcanic sequences from the eastern central Patagonian Cordillera (45°-45°40'S), Revista Geológica de Chile, v. 34, no. 1, pp. 3-21.
- [Dhamdusdi and Chitmanee, 1984] Dhamdusdi, V. and Chitmanee, S., 1984, Geological map of Thailand 1: 50,000, Sheet 4843II Ban Pong Daeng, Department of Mineral Resources, Thailand.
- [Drake, 1975] Drake, M.J., 1975, The oxidation state of europium as an indicator of oxygen fugacity, Geochimica et Cosmochimica Acta, v. 39, pp. 55– 64.
- [Fan et al., 2010] Fan, W.M., Wang, Y.J., Zhang, A., Zhang, F., and Zhang, Y., 2010, Permian arc back-arc basin development along the Ailaoshan

tectonic zone: Geochemical, isotopic and geochronological evidence from the Mojiang volcanic rocks, Southwest China: Lithos. v. 119, pp. 553-568.

- [Feng et al., 2005] Feng, Q., Chonglakmani, C., Helmcke, D., Ingavat-Helmcke, R., and Liu, B., 2005, Correlation of Triassic stratigraphy between Simao and Lampang–Phrae Basins: implications for the tectonopaleogeography of Southeast Asia, Journal of Asian Earth Science, v. 24, pp. 777–785.
- Ferrari, O.M., Hochard, C., and Stampfli, G.M., 2008, An [Ferrari et al., 2008] alternative plate tectonic model for the Palaeozoic -Early Mesozoic Palaeotethyan evolution of southeast Asia (Northern Tahiland-Burma): Journal of Tectonophysics, v. 451, pp. 346-365.
- [Gałaś, 2014] Gałaś, A., 2014, Petrology and new data on the geochemistry of the Andahua volcanic group (Central Andes, southern Peru), Journal of South American Earth Sciences, v. 56, pp. 301-315.
- Gioncada, A., Orlandi, P., Vezzoli, L., Omarini, R.H., [Gioncada *et al.*, 2014] Mazzuoli, R., Lopez-Azarevich, V., Sureda, R., Azarevich, M., Acocella, V., and Ruch, J., 2014, Topaz magmatic crystallization in rhyolites of the Central Andes (Chivinar volcanic complex, NW Argentina): Constraints from texture, mineralogy and rock chemistry, Lithos, v. 184-187, pp. 62-73. 3.0
- Hada, S., Bunopas, S., Ishii, K., and Yoshikura, S., 1999, Rift-[Hada et al., 1999] drift history and the Amalgamation of Shan-Thai and Indochina/East Malaya Blocks: In Metcalfe, I. (ed.), Gondwana Dispersion and Asian Accretion - IGCP 321 Final Results Volume, A.A. Balkema Publishers, Rotterdam, pp. 67-68.

vright©

[Hahn, 1984] Hahn, L., 1984, The Indosinian orogeny in Thailand and adjacent areas: Societe Geologique de France, memoire no. 147, pp. 71-82.

- [Haoruo et al., 1995] Haoruo, W., Boulter, C.A., Baojia, K., Stow, D.A.V., and Zhongcheng, W., 1995, The Changning-Menglian suture zone – a segment of the major Cathaysian-Gondwana divide in Southeast Asia: Tectonophysics, v. 242, pp. 267-280.
- [Hara et al., 2013] Hara, H., Kon, Y., Usuki, T., Lan, C.-Y., Kamata, Y., Hisada, K., Ueno, K., Charoentitirat, T., and Charusiri, P., 2013, U–Pb ages of detrital zircons within the Inthanon Zone of the Paleo-Tethyan subduction zone, northern Thailand: new constraints on accretionary age and arc activity, Journal of Asian Earth Science, v.74, pp. 50–61.
- [Hess, 1989] Hess, P.C., 1989, Origins of Igneous Rocks. Harvard University Press, Cambridge Massachusetts, USA, pp. 336.
- [Hinthong et al., 1986] Hinthong, Ch., Sarapirome, S., Wunapeera, A., Phuanda, J., and Kosuwan, S., 1986, Geological map of Thailand 1: 50,000 Sheet 4842IV Changwat Tak, Department of Mineral Resources, Thailand.
- [Hisada et al., 2004] Hisada, K., Sugiyama, M., Ueno, K., Charusiri, P., and Arai, S., 2004, Missing ophiolite rocks along the Mae Yuam Fault as the Gondwana-Tethys divide in northwest Thailand, Island Arc, v. 13, pp. 119-127.
- [Hole et al., 1984] Hole, M.J., Saunders, A.D., Marriner, G.F., Tarney, J., 1984, Subduction of pelagic sediment: implications for the origin of Ceanomalous basalts from the Mariana Islands., Journal of Geology Society of London, v. 141, pp. 453–472.
- [Intasopa and Dunn, 1994] Intasopa, S., and Dunn, T., 1994, Petrology and Sr-Nd isotropic systems of the basalts and rhyolites, Loei, Thailand: Journal of Southeast Asian Earth Sciences, v. 9, pp. 177-180.
- [Intasopa, 1993] Intasopa, S., 1993, Petrology and Geochronology of the Volcanic Rocks of the Cantral Thailand Volcanic Belt: Unpublished Ph.D. Thesis, University of New Brunswick, pp. 244.

- [Jungyusuk and Khositanont, 1992] Jungyusuk, N., and Khositanont, S., 1992, in: Piencharoen, C. (Ed.), Volcanic rocks and associated mineralization in Thailand, *In Proceedings*, The National Conference on Geologic Resources of Thailand—Potential for Future Development, Bangkok, Thailand, Department of Mineral Resources, pp. 528–532.
- [Kamvong et al., 2006] Kamvong, T., Charusiri., P., and Intasopa, B.S., 2006, Petrochemical characteristics of igneous rocks from the Wang Pong area, Phetchabun, North Central Thailand: implication for tectonic setting: Journal of Geological Society of Thailand, no. 1, pp. 9-26.
- [Khositanont et al., 2007] Khositanont, S., Ounchanum, P., Panjasawatwong, Y., Thanasuthipitak, Th., Zaw, K., and Meffre, S., 2007, U-Pb zircon ages and geochemical characteristics of Lampang-Phrae granites; implications for plate tectonic interpretation, *In Proceedings*, The International Conference on Geology of Thailand Towards Sustainable Development and Sufficiency Economy, pp. 367 – 372.
- [Khositanont, 2008] Khositanont, S., 2008, Gold and iron-gold mineralization in the Sukhothai and Loei-Phetchabun fold bels: Unpublished Ph.D. thesis, Chiang Mai University, pp. 186.
- [Kosuwan et al., 2013] Kosuwan, P. J., Limtrakun P., Boonsoong A., Srithai B., and Panjasawatwong Y., 2013, Geochemistry of Mafic to Felsic Volcanic/Hypabyssal Rocks from Nakhon Sawan and Uthai Thani Provinces, Central Thailand: *In Proceedings*, International Graduate Research Conference 2013, pp.148-154.
- [Kosuwan, 2004] Kosuwan, P., 2004, Petrochemistry and Tectonic setting of mafic volcanic rocks in Khlong Tha Dan Dam Area, Nakhon Nayok Province, Thailand: Unpublished MS. thesis, Chiang Mai University, pp. 95.

- [Kosuwan, 2013] Kosuwan, P., 2013, Petrochemistry and Tectonic significance of volcanic rocks in Nakhon Sawan and Uthai Thani Provinces, Thailand: Unpublished PhD. thesis, Chiang Mai University, pp. 163.
- [Madeisky, 1996] Madeisky, H.E., 1996, A lithogeochemical and radiometric study of hydrothermal alteration and metal zoning at the Cinola epithermal gold deposit, Queen Charlotte Ialands, British Columbia. *In:* Coyner, A.R., Fahey, P.L. (Eds.), Geology and ore deposits of American Cordillera, pp. 109-133.
- [Mahawat, 1982] Mahawat, J., 1982, The petrology and geochemistry of the granitic rocks of the Tak batholith, Thailand: Unpublished Ph.D. thesis, Liverpool University, pp. 210.
- [Mattioli et al., 2006] Mattioli, M., Renzulli, A., Menna, M., and Holm, P.M., 2006, Rapid ascent and contamination of magmas through the thick crust of the CVZ (Andes, Ollagüe region): vidence from a nearly aphyric high-K andesite with skeletal olivines, Journal of Volcanology and Geothermal Research, v. 158, pp. 87–105.
- [Melluso et al., 2008] Melluso, L., Cucciniello, C., Petrone, C.M., Lustrino, M, Morra, V., Tiepolo, M., and Vasconcelos, L., 2008, Petrology of Karoo volcanic rocks in the southern Lebombo monocline, Mozambique, Journal of African Earth Sciences, v. 52, pp. 139–151.
- [Metcalfe and Sone, 2008] Metcalfe, I., and Sone, M., 2008, Parallel Tethyan sutures in mainland Southeast Asia: New insights for Palaeo-Tethys closure and implications for the Indosinian orogeny : Journal of Comptes Rendus Geoscience, v. 340, p. 166-179.
- [Metcalfe, 1984] Metcalfe, I., 1984. Stratigraphy, palaeontology and palaeogeography of the Carboniferous of Southeast Asia. Memory Society Geology France 147, pp. 107–118.

- [Metcalfe, 2002a] Metcalfe, I., 2002a, Permian tectonic framework and palaeography of SE Asia: Journal of Asian Earth Sciences, v. 20, p. 551-566.
- [Metcalfe, 2002b] Metcalfe, I., 2002b, The Paleo-Tethys in Thailand, *In Proceedings*, The Fourth Symposium of IGCP Project No. 411-Geodynamic Processes of Gondwanaland-Derived Terranes in East Asia and Southeast Asia, Phitsanulok, Thailand, Program and Abstract, pp. 10-16.
- [Metcalfe, 2011] Metcalfe, I., 2011, Tectonic framework and Phanerozoic evolution of Sundaland, Gondwana Research, v. 19, pp. 3–21.
- [Metcalfe, 2013] Metcalfe, I., 2013, Gondwana dispersion and Asian accretion: tectonic and palaeogeographic evolution of eastern Tethys, Journal of Asian Earth Sciences, v. 66, pp. 1–33.
- [Morley et al., 2011] Morley, C.K., Charusiri, P., Watkinson, I., 2011, Structural geology of Thailand during the Cenozoic. In: Ridd, M.F., Barber, A.J., Crow, M.J. (Eds.), The Geology of Thailand, Geological Society of London, Memoir, pp. 273–334.
- [Morley, 2002] Morley, C.K., 2002, A tectonic model for the Tertiary evolution of strike-slip faults and rift basins in SE Asia, Tectonophysics, v. 347, pp. 189-215.
- [Neal and Taylor, 1989] Neal, C.R., Taylor, L., 1989, A negative Ce anomaly in a peridotite xenolith: evidence for crustal recycling into the mantle or mantle metasomatism, Geochimica et Cosmochimica Acta, v. 53, pp. 1035–1040.
- [Osataporn, 2007] Osataporn, P., 2007, Petrochemistry and Tectonic Setting of Late Triassic-Early Jurassic Mafic Volcanic Rocks, Long District, Phrae Province, Thailand: Unpublished M.S. thesis, Chiang Mai University, pp. 107.

- [Panjasawatwong et al., 1995] Panjasawatwong, Y., Kanpeng, K., and Ruangvatanasirikul, K., 1995, Basalts in Li basin, northern Thailand. In Proceedings, The International Conference on Geology, Geotechnology and Mineral Resources of Indochina, Khon Kaen, Thailand, pp. 225–234.
- [Panjasawatwong et al., 2003] Panjasawatwong, Y., Phajuy, B., and Hada, S., 2003, Tectonic setting of the Permo-Triassic Chiang Khong volcanic rocks, northern Thailand, based on petrochemical characteristics, Gondwana Research, v. 6, pp. 743-755.
- [Panjasawatwong et al., 2006] Panjasawatwong, Y., Zaw, K. H. I. N., Chantaramanee, S., Limtrakun, P., and Pirarai, K., 2006, Geochemistry and tectonic setting of eruption of central Loei volcanic rocks, Pak Chom area, Loei, northeastern Thailand, Journal of Asian Earth Sciences, v. 26, pp. 77–90.
- [Panjasawatwong, 1991] Panjasawatwong, Y., 1991, Petrology, Geochemistry and Tectonic Implications of Igneous rocks in the Nan Suture, Thailand, and an Empirical Study of the Effects of Ca/Na, Al/Si and H₂O on Plagioclase-Melt Equilibria at 5-10 kb Pressure: Unpublished Ph.D. thesis, University of Tasmania, pp. 239.
- [Phajuy et al., 2005] Phajuy, B., Panjasawatwong, Y., and Osataporn, P., 2005, Preliminary geochemical study of volcanic rocks in the Pang Mayao area, Phrao, Chiang Mai, northern Thailand - tectonic setting of formation: Journal of Asian Earth Sciences, v. 24, pp. 765-776.
- [Phajuy, 2001] Phajuy, B., 2001, Geochemistry, petrology and tectonic setting of Permo-Triassic mafic volcanic rocks in the northern part of Chiang Khong-Tak volcanic belt: Unpublished MS. Thesis, Chiang Mai University, pp. 112.
- [Phajuy, 2008] Phajuy, B., 2008, Petrochemistry and tectonic significance of mafic volcanic rocks in the Chiang Rai - Chiang Mai volcanic belt, northern

Thailand: Unpublished thesis in Ph.D., Chiang Mai University, pp. 259.

- [Philpotts and Ague, 2009] Philpotts, A.R. and Ague, J.J., 2009, Principles of Igneous and Metamorphic Petrology, Second Edition, Cambridge University Press, pp. 667.
- [Qian et al., 2013] Qian, X., Feng, Q., Chonglakmani, C., and Monjai, D., 2013, Geochemical and geochronological constrains on the Chiang Khong volcanic rocks (northwestern Thailand) and its tectonic implications, Frontiers of Earth Science, v. 7, pp. 508-521.
- [Qian et al., 2016] Qian, X., Wang, Y., Feng, Q., Zi, J.W., Zhang, Y., and Chonglakmani, C., 2016, Petrogenesis and tectonic implication of the Late Triassic post-collisional volcanic rocks in Chiang Khong, NW Thailand, Lithos, v. 248, pp. 418–431.
- [Royal Thai Survey Department, 1999a] Royal Thai Survey Department, 1999a, Topographic map of Thailand 1:50,000 sheet 4842I Ban Nam Dip.
- [Royal Thai Survey Department, 1999b] Royal Thai Survey Department, 1999b, Topographic map of Thailand 1:50,000 sheet 4842III King Amphoe Wang Chao.
- [Royal Thai Survey Department, 1999c] Royal Thai Survey Department, 1999c, Topographic map of Thailand 1:50,000 sheet 4843I Ban Huai Rin.
- [Royal Thai Survey Department, 1999d] Royal Thai Survey Department, 1999d, Topographic map of Thailand 1:50,000 sheet 4843III Amphoe Ban Tak.
- [Royal Thai Survey Department, 1999e] Royal Thai Survey Department, 1999e, Topographic map of Thailand 1:50,000 sheet 4942III Amphoe Phran KraTai.

- [Royal Thai Survey Department, 1999f] Royal Thai Survey Department, 1999f, Topographic map of Thailand 1:50,000 sheet 4943III Amphoe Ban Dan Lan Hoi.
- [Royal Thai Survey Department, 1999g] Royal Thai Survey Department, 1999g, Topographic map of Thailand 1:50,000 sheet 4842II King Amphoe Kosamphi Nakhon.
- [Royal Thai Survey Department, 1999h] Royal Thai Survey Department, 1999h, Topographic map of Thailand 1:50,000 sheet 4842IV Changwat Tak.
- [Royal Thai Survey Department, 1999i] Royal Thai Survey Department, 1999i, Topographic map of Thailand 1:50,000 sheet 4843II Ban Pong Daeng.
- [Royal Thai Survey Department, 1999j] Royal Thai Survey Department, 1999j, Topographic map of Thailand 1:50,000 sheet 4843IV Amphoe Mae Phrik.
- [Royal Thai Survey Department, 1999k] Royal Thai Survey Department, 1999k, Topographic map of Thailand 1:50,000 sheet 4942IV Amphoe Ban Dan Lan Hoi.
- [Royal Thai Survey Department, 1999]] Royal Thai Survey Department, 1999], Topographic map of Thailand 1:50,000 sheet 4943IV Amphoe Thung Saliam.
- [Sareerat and Silapalit, 1987] Sareerat, S. and Silapalit, M., 1987, Geological map of Thailand 1: 50,000 Sheet 4842 II Ban Khlong Muang, Department of Mineral Resources, Thailand.
- [Sashida and Nakornsri, 1997] Sashida, K., and Nakornsri, N., 1997, Lower Permian radiolarian faunas from the Khanu Chert Formation distributed in the Sukhothai area, Northern Central Thailand, *In Proceedings*, The International Conference on Stratigraphy and Tectonic Evolution of Southeast Asia and the South Pacific (GEOTHAI'97): Bangkok, Thailand, 1997, v. 1, pp. 101-108.

- [Shangyue et al., 2009] Shangyue, S., Qinglai, F., Zhibin, Z., and Chonglakmani, C., 2009, Geochemical characteristics of the oceanic island-type volcanic rocks in the Chiang Mai zone, northern Thailand: Chinese Journal of Geochemistry, v. 28, pp. 258-263.
- [Silapalit and Sareerat, 1987] Silapalit, M. and Sareerat, S., 1987, Geological map of Thailand 1: 50,000 Sheet 4942III Amphoe Phran Kratai, Department of Mineral Resources, Thailand.
- [Singharajwarapan and Berry, 2000] Singharajwarapan, S., and Berry, R., 2000, Tectonic implications of the Nan Suture zone and its relationship to the Sukhothai Fold belt, northern Thailand: Journal of Asian Earth Sciences, v. 18, pp. 663-673.
- [Singharajwarapan et al., 2000] Singharajwarapan, S., Berry, R., and Panjasawatwong, Y., 2000, Geochemical characteristics and tectonic significance of the Permo-Triassic Pak Pat volcanic, Uttaradit, northern Thailand: Journal of the Geological Society of Thailand, no. 1. pp. 1-7.
- [Singharajwarapan, 1994] Singharajwarapan, S., 1994, Deformation and Metamorphism of the Sukhothai Fold Belt, Northern Thailand: Unpublished Ph.D. thesis, University of Tasmania, pp. 385.
- [Singtuen and Phajuy, 2015] Singtuen, M. and Phajuy, B., 2015, Petrogenesis of Mafic Dikes in the Ban Chun area, Tambon Chun, Chun District, Phayao Province, *In Proceeding*, the GEOINDO international conference 2015, November 23-24, pp. 11.
- [Singtuen and Phajuy, 2016] Singtuen, M. and Phajuy, B., 2016, Geochemistry and Tectonic Significance of Andesitic Rocks in Tak Province, Thailand, In Proceeding, 52nd CCOP Annual Session, November 1, pp. 34.
- [Singtuen and Phajuy, 2017] Singtuen, M. and Phajuy, B., 2017, Geochemistry of Felsic Extrusive Rocks in the Southern Part of the Chiang Khong –

Lampang –Tak Volcanic Belt, Thailand, In Proceeding, 6th iGRC international conference 2017, February 9-10, pp. xx.

- [Sone and Metcalfe, 2008] Sone, M., and Metcalfe, I., 2008, Parallel Tethyan sutures in mainland SE Asia: new insights for Palaeo-Tethys closure, Comptes Rendus Geoscience, v. 340, pp. 166–179.
- [Sone et al., 2012] Sone, M., Metcalfe, I., and Chaodumrong, P., 2012. The Chanthaburi terrane of southeastern Thailand: stratigraphic confirmation as a disrupted segment of the Sukhothai Arc. Journal of Asian Earth Sciences 61, p. 16–32.
- [Srichan et al., 2009] Srichan, W., Crawford, A.J., and Berry, R.F., 2009, Geochemistry and geochronology of Late Triassic volcanic rocks in the Chiang Khong region, northern Thailand, Island Arc, v. 18, pp. 32–51.
- [Srichan, 2008] Srichan, W., 2008, Petrochemistry, Geochronology and Tectonic Implication of the Chiang Khong-Lumpang-Tak Volcanic Belt, Northern, Thailand: Unpublished Ph.D. thesis, University of Tasmania, pp. 284.
- [Surour et al., 2016] Surour, A.A., El-Nisr, S.A., and Bakhsh, R.A., 2016, Origin of hydrous alkali feldspar-silica intergrowth in spherulites from intraplate A2-type rhyolites at the Jabal Shama, Saudi Arabia, Journal of African Earth Sciences, v. 115, pp. 92-107.
- [Torres-Alvarado et al., 2016] Torres-Alvarado, I.S., Lenhardt, N., Arce, J.L., and Hinderer, M., 2016, Geochemical and isotopic composition of volcanic rocks of the heterogeneous Miocene (~23–19 Ma) Tepoztlán Formation, early Transmexican Volcanic Belt, Mexico, Journal of Volcanology and Geothermal Research, v. 316, pp. 72-84.
- [Ueno et al., 1999] Ueno, K., Hisada, K., 2001. The Nan–Uttaradit–Sa Kaeo Suture as a main Paleo-Tethyan suture in Thailand: is it real?, Gondwana Research, v. 4, pp. 804–806.

- [Ueno, 1999] Ueno, K., 1999, Gondwana/Tethys divide in East Asia-solution from Late Paleozoic foraminiferal paleobiogeography, *In* Proceedings, The International Symposium on Shallow Tethys (ST) 5, Chiang Mai, Thailand, Chiang Mai University, pp. 45-54.
- [Viriyasuksing and Phajuy, 2015] Viriyasuksing, P. and Phajuy, B., 2015, Cr-spinel – Bearing Olivine Cumulates in Phrao – Chiang Dao Area, Northern Thailand: Geochemistry and Petrogenesis, *In* Proceedings, The International Graduate Research Conference (iGRC). Chiang Mai, Thailand, pp. 175.
- [Viriyasuksing, 2016] Viriyasuksing, P., 2016, Geochemistry and Petrogenesis of the Mafic and Ultramafic Rocks from Phrao and Chiang Dao Districts, Chiang Mai Province: Unpublished MS. Thesis, Chiang Mai University, pp. 160.
- [Wakita and Metcalfe, 2005] Wakita, K., and Metcalfe, I., 2005, Ocean plate stratigraphy in East and Southeast Asia: Journal of Asian Earth Sciences, v. 24, pp. 679-702.
- [Wang et al., 2010] Wang, Y.J., Zhang, A., Fan, W.M., Peng, T., Zhang, F., Zhang, Y., and Bi, X., 2010, Petrogenesis of late Triassic post-collisional basaltic rocks of the Lancangjiang tectonic zone, southwest China, and tectonic implications for the evolution of the eastern Paleotethys: Geochronological and geochemical constraints: Lithos, v. 120, pp. 529-546.
- [Wang et al., 2016] Wang, Y., He, H., Cawood, P.A., Srithai, B., Feng, Q., Fan, W., Zhang, Y., and Qian, X., 2016, Geochronological, elemental and Sr-Nd-Hf-O isotopic constraints on the petrogenesis of the Triassic post-collisional granitic rocks in NW Thailand and its Paleotethyan implications, Lithos, v. 266–267, pp. 264–286.
- [Wilson, 1989] Wilson, M., 1989, Igneous Petrogenesis. Harper Collins Academic, London, Great Britain, pp. 466.

- [Winter, 2010] Winter, J.D., 2010, Principles of Igneous and Metamorphic Petrology, Second Edition, Prentice Hall, pp. 702.
- [Wipakul, 2012] Wipakul, U., 2012, Petrochemistry and age of volcanic rocks, Nan province, Thailand: Unpublished MS. Thesis, Chiang Mai University, pp. 175.
- [Yang et al., 1994] Yang, K., Mo, X., and Zhu, Q., 1994, Tectono-volcanic belts and Late Paleozoic-Early Mesozoic evolution of southwestern Yunnan, China, Journal of Southeast Asian Earth sciences, v. 10, pp. 245-262.
- [Yang, 1998] Yang, K., 1998, A plate tectonic reconstruction of the eastern Tethyan orogen in southwestern China, *In* Flower, F.J., Chung, S., Lo, C., and Lee, T. (Eds.), Mantle Geodynamics and Plate Interactions in East Asia-Geodynamics Series, v. 27, pp. 269-287.
- [Yoshikura, 1990] Yoshikura, S., 1990, Geology of the Nan-Chanthaburi suture zone (II)-Petrology of basaltic rocks, *In Proceedings*, The Symposium on Devolvement Geology for Thailand into the Year 2000, Bangkok, Thailand, Abstract, pp. 11-13.
- [Zhao et al., 2016] Zhao, J., Li, G., Evans, N.J., Qin, K., Li, J., and Zhang, X., 2016, Petrogenesis of Paleocene-Eocene porphyry deposit-related granitic rocks in the Yaguila-Sharang ore district, central Lhasa terrane, Tibet, Journal of Asian Earth Sciences, v. 129, pp. 38–53.

Copyright[©] by Chiang Mai University All rights reserved

LIST OF PUBLICATIONS

- Singtuen, M. and Phajuy, B., 2015, Petrogenesis of Mafic Dikes in the Ban Chun area, Tambon Chun, Chun District, Phayao Province, *In Proceeding*, the GEOINDO international conference 2015, November 23-24, pp. 11.
- Singtuen, M. and Phajuy, B., 2016, Geochemistry and Tectonic Significance of Andesitic Rocks in Tak Province, Thailand, *In Proceeding*, 52nd CCOP Annual Session, November 1, pp. 34.
- Singtuen, M. and Phajuy, B., 2017, Geochemistry of Felsic Extrusive Rocks in the Southern Part of the Chiang Khong – Lampang –Tak Volcanic Belt, Thailand, *In Proceeding*, 6th iGRC international conference 2017, February 9-10, pp. xx.

