

REFERENCES

- ASTM D2487. (2017). Standard practice for classification of soils for engineering purposes (Unified Soil Classification System). *Annual Book of ASTM Standards*. Philadelphia, P.A.
- ASTM D4644. (2016). Standard test method for slake durability of shale and similar rocks. *Annual Book of ASTM Standards*. Philadelphia, P.A.
- ASTM D7263. (2021). Standard test methods for laboratory determination of density and unit weight of soil specimens. *Annual Book of ASTM Standards*. Philadelphia, P.A.
- ASTM E3294. (2022). Standard guide for forensic analysis of geological materials by powder X-Ray diffraction. *Annual Book of ASTM Standards*. Philadelphia, P.A.
- Azhar, M. U., Zhou, H., Yang, F., Younis, A., Lu, X., Hou-Guo, F., & Geng, Y. (2020). Water-induced softening behavior of clay-rich sandstone in Lanzhou Water Supply Project, China. *Journal of Rock Mechanics and Geotechnical Engineering*, 12(3), 557-570.
- Brotons, V., Tomas, R., Ivorra, S., & Braga, J. C. (2013). Temperature influence on the physical and mechanical properties of a porous rock: San Julian's calcarenite. *Engineering Geology*, 167, 117-127.
- Chamwon, S., Thongprapha, T., & Fuenkajorn, K. (2020). Correlation between ultrasonic pulse velocities and physical and chemical properties of rocks. *Proceedings of Academicera International Conference*, 99(1), 46-51.
- Charusiri, P., Imsamut, S., Zhonghai, Z., Ampaiwan, T., & Xu, X. (2006). Paleomagnetism of the earliest Cretaceous to early late Cretaceous sandstones, Khorat Group,

- Northeast Thailand: Implications for tectonic plate movement of the Indochina block. *Gondwana Research*, 9(3), 310-325.
- Corominas, J., Martinez-Bofill, J., & Soler, A. (2014). A textural classification of argillaceous rocks and their durability. *Landslides*, 12(4), 669-687.
- Department of Mineral Resources. (2018). Ministry of Natural Resources and Environment. Bangkok, Thailand.
- Dobereiner, L. & Freitas, M.H. (1986). Geotechnical properties of weak sandstone. *Geotechnique*. 36(1), 79-94.
- Erguler, Z. A., & Shakoor, A. (2009). Relative contribution of various climatic processes in disintegration of clay-bearing rocks. *Engineering Geology*, 108(1-2), 36-42.
- Erguler, Z. A., & Ulusay, R. (2009). Assessment of physical disintegration characteristics of clay-bearing rocks: disintegration index test and a new durability classification chart. *Engineering Geology*, 105(1-2), 11-19.
- Fereidooni, D. & Khajevand, R. (2017). Correlations between slake-durability index and engineering properties of some travertine samples under wetting-drying cycles. *Geotechnical and Geological Engineering*. 36, 1071-1089.
- Flores, A. N., Bledsoe, B. P., Cuhacian, C. O., & Wohl, E. (2006). Channel-reach morphology dependence on energy, scale, and hydroclimatic processes with implications for prediction using geospatial data. *Water Resources Research*, 42(6).
- Foye, W. G. (1921). Denudation, Erosion, Corrosion and Corrasion. *Science*. 54(1389), 130-131.
- Franklin, J. A. & Chandra, R. (1972). The slake-durability test. *International Journal of Rock Mechanics and Mining Science*. 9, 325-341.
- Fuenkajorn, K. (2011). Experimental assessment of long-term durability of some weak rocks. *Bulletin of Engineering Geology and the Environment*, 70(2), 203-211.

- George, M.F. & Sitar, N. 2012. *Block Theory Application to Scour Assessment of Unlined Rock Spillways*. Technical Report No. UCB GT-12e02. University of California.
- Gokceoglu, C., Ulusay R., & Sonmez, H. (2000). Factors affecting the durability of selected weak and clay-bearing rocks from Turkey, with particular emphasis on the influence of the number of drying and wetting cycles. *Engineering Geology*, 57, 215-237.
- Gong, T., Zhu, Y., & Shao, M. (2018). Effect of embedded-rock fragments on slope soil erosion during rainfall events under simulated laboratory conditions. *Journal of Hydrology*, 563, 811–817.
- Goossens, D. (1994). Effect of rock fragments on eolian deposition of atmospheric dust. *CATENA*, 23(1–2), 167–189.
- Gupta, A.S. & Seshagiri, K.R. (2000). Weathering effect on the strength and deformational behavior of crystalline rocks under uniaxial compression state. *Engineering Geology*. 56(3-4): 257-274.
- Hawkins, A. B., & McConnell, B. J. (1992). Sensitivity of sandstone strength and deformability to changes in moisture content. *The Quarterly Journal of Engineering Geology & Hydrogeology*, 25, 115-130.
- Heidari, M., Momeni, A. A., Rafiei, B., Khodabakhsn, S., & Toorabi-Kaveh, M. (2013). Relationship between petrographic characteristic and the engineering properties of Jurassic sandstones, Hamedan, Iran. *Rock Mechanics and Rock Engineering*, 46, 1091-1101.
- Hryciw, R. D., Zheng, J., & Shetler, K. (2016). Particle roundness and sphericity from images of assemblies by chart estimates and computer methods. *Journal of Geotechnical and Geoenvironmental Engineering*, 142(9).
- Inkpen, R. (2007). Interpretation of erosion rates on rock surfaces. *Area*, 39(1), 31–42.

- Jamshidi, A. (2023). Slake durability evaluation of granitic rocks under dry conditions and slaking solution and its prediction using petrographic and strength characteristics. *Bulletin of Engineering Geology and the Environment*, 82(4).
- Keaton, J. R. (2013). Estimating erodible rock durability and geotechnical parameters for SCOUR analysis. *Environmental & Engineering Geoscience*, 19(4), 319-343.
- Kolay, E. & Kayabali, K. (2006). Investigation of the effect of aggregate shape and surface roughness on the slake durability index using the fractal dimension approach. *Engineering Geology*, 86(4), 271-284.
- Koncagul, E. C. & Santi, P. M. (1999). Predicting the unconfined compressive strength of the Breathitt shale using slake durability, Shore hardness and rock structural properties. *International Journal of Rock Mechanics and Mining Science*. 36, 139-153.
- Krautblatter, M., & Moore, J. R. (2014). Rock slope instability and erosion: toward improved process understanding. *Earth Surface Processes and Landforms*, 39(9), 1273-1278.
- Lamb, M. P., Finnegan, N. J., Scheingross, J. S., & Sklar, L. S. (2015). New insights into the mechanics of fluvial bedrock erosion through flume experiments and theory. *Geomorphology*, 244, 33-55.
- Larimer, J. E., Yager, E., Yanites, B. J., & Witsil, A. J. (2021). Flume experiments on the erosive energy of bed load impacts on rough and planar beds. *Journal of Geophysical Research. Earth Surface*, 126(4).
- Lashkaripour, G. R., & Boomeri, M. (2002). The role of mineralogy on durability of weak rocks. *Journal of Applied Sciences*, 2(6), 698-701.
- Li, M. & Liu, X. (2022). Effect of thermal treatment on the physical and mechanical properties of sandstone: insights from experiments and simulations. *Rock Mechanics and Rock Engineering*, 55(6), 3171-3194.

- Li, X., Fu, S., Hu, Y., & Liu, B. (2022). Effects of rock fragment coverage on soil erosion: differ among rock fragment sizes. *CATENA*, 214.
- Lin, M., Jeng, F., Tsai, L. S., & Huang, T. (2005). Wetting weakening of tertiary sandstones- microscopic mechanism. *Environmental Geology*, 48(2), 265-275.
- Lyles, L. (1983). Erosive wind energy distributions and climatic factors for the West. *Journal of Soil and Water Conservation*, 38(2), 106-109.
- Marot, D., Le, V. D., Garnier, J., Thorel, L., & Audrain, P. (2012a). Study of scale effect in an internal erosion mechanism: centrifuge model and energy analysis. *European Journal of Environmental and Civil Engineering*, 16(1), 1-19.
- Marot, D., Le, V. D., Garnier, J., Thorel, L., & Audrain, P. (2012b). Study of scale effect in an internal erosion mechanism: centrifuge model and energy analysis. *European Journal of Environmental and Civil Engineering*, 16(1), 1-19.
- McCarroll, D. & Nesje, A. (1996). ROCK SURFACE ROUGHNESS AS AN INDICATOR OF DEGREE OF ROCK SURFACE WEATHERING. *Earth Surface Processes and Landforms*, 21(10), 963-977.
- McKay, C. P., Molaro, J. L., & Marinova, M. M. (2009). High-frequency rock temperature data from hyper-arid desert environments in the Atacama and the Antarctic Dry Valleys and implications for rock weathering. *Geomorphology*, 110(3-4), 182-187.
- Meriam, J. L. & Kraige, L. G. (1980a). Engineering mechanics volume 1: statics. *Fluid statics* (pp. 306-313). New York, NY: John Wiley & Sons.
- Meriam, J. L. & Kraige, L. G. (1980b). Engineering mechanics volume 2: dynamics. *Kinetics of particles* (pp. 460-463). New York, NY: John Wiley & Sons.

- Moradian, Z., Ghazvinian, A., Ahmadi, M., & Behnia, M. (2010). Predicting slake durability index of soft sandstone using indirect tests. *International Journal of Rock Mechanics and Mining Sciences*, 47(4), 666-671.
- Moses, C., Robinson, D. A., & Barlow, J. (2014). Methods for measuring rock surface weathering and erosion: a critical review. *Earth-Science Reviews*, 135, 141-161.
- Murray, C., Heggemann, H., Gouadain, J., & Krisadasima, S. (1993). Geological history of the siliciclastic Mesozoic strata of the Khorat Group in the Phu Phan range area, northeastern Thailand. *International Symposium on Biostratigraphy of Mainland Southeast Asia: Facies and Paleontology*. 23-49.
- Nichols, G. (2009). *Sedimentology and stratigraphy*. United Kingdom: Willey-Blackwell.
- Paripuri, P. S., Parian, M., & Rosenkranz, J. (2020). Breakage process of mineral processing comminution machine - an approach of liberation. *Advanced Powder Technology*, 31, 3669-3685
- Racey, A, Love, .M. A., Canham, A. C., Goodall, J. G. S., Polachan, S., & Jones, P. D. (1996). Stratigraphy and reservoir potential of the mesozoic Khorat group, NE Thailand: Part 1: stratigraphy and sedimentary evolution. *Journal of Petroleum Geology*, 19(1), 5-40
- Scheingross, J. S. & Lamb, M. P. (2017). A Mechanistic Model of Waterfall Plunge Pool Erosion into Bedrock. *Journal of Geophysical Research*, 122(11), 2079-2104.
- Shahid, R. M. (2022). Evaluation of multivariable regression in predicting rock slake durability index. *Scientific Research Publishing House*, 4(1), 1-20.
- Shrestha, D. P. (2008). Guidelines for Monitoring and assessment of wind erosion at site level prepared for Arab center for the study of arid zones and dry lands (ACSAD) damascus, Syria. Retrived from <http://www.itc.nl/personal/shrestha/winderosion.pdf>.

- Sibille, L., Lomine, F., Poullain, P., Sail, Y., & Marot, D. (2014). Internal erosion in granular media: direct numerical simulations and energy interpretation. *Hydrological Processes*, 29(9), 2149-2163
- Sirdesai, N., Mahanta, B., Ranjith, P., & Singh, T. N. (2017). Effects of thermal treatment on physico-morphological properties of Indian fine-grained sandstone. *Bulletin of Engineering Geology and the Environment*, 78(2), 883-897.
- Somerton, W. H. (1992). *Thermal properties and temperature-related behavior of rock/fluid systems* (pp. 148-166). Amsterdam: Elsevier.
- Song, H., Jiang, G., Poulton, S. W., Wignall, P. B., Tong, J., Song, H., An, Z., Chu, D., Tian, L., She, Z., & Wang, C. (2017). The onset of widespread marine red beds and the evolution of ferruginous oceans. *Nature Communications*, 8(1).
- Sousa, L. M. O., Surarez del Rio, L. M., & Calleja, L. (2005). Influence of microfractures and porosity on the physico-mechanical properties and weathering of ornamental granites. *Engineering Geology*, 77(1-2), 53-168.
- State Railway of Thailand. 2020. Ministry of Transport. Bangkok, Thailand.
- Torabi-Kaveh, M., Mehrnahad, H., Morshedi, S., & Jamshidi, A. (2021). Investigating the durability of weak rocks to forecast their long-term behaviors. *Bulletin of Engineering Geology and the Environment*, 81(1), 8-30.
- Torsangtham, P., Khamrat, S., Thongprapha, T., & Fuenkajorn, K. (2019). Laboratory assessment of long-term durability of some decorating and construction rocks. *Journal of Research and Development*, 30(3), 135-143.
- Trudgill, S. T. 1989, Remeasurement of weathering rates, St. Paul's Cathedral, London. *Earth Surface Processes and Landforms*, 14, 175-196.
- Tugrul, A. and Zarif, L. H. (1998). The influence of mineralogical textural and chemical characteristics on durability of selected sandstones in Istanbul, Turkey. *Bulletin of Engineering Geology and the Environment*, 57, 185-190.

- Veeravinantanakul, A., Kanjanapayont, P., Sangsompong, A., Hasebe, N., & Charusiri, P. (2021). Structure of Phu Phan Range in the Khorat Plateau: Its Apatite Fission Track Ages and Geological Syntheses. *Bulletin of Earth Sciences of Thailand*, 10(1), 8-16.
- Walsri, C., Sriapai, T., Phueakphum, D., & Fuenkajorn, K. (2012). Simulation of sandstone degradation using large-scale slake durability index testing device. *Songklanalarin Journal of Science and Technology*, 34, 587-596.
- Xiang, J., Latham, J., & Pain, C. C. (2022). Numerical simulation of rock erosion performance of a high-speed water jet using an immersed body method. *International Journal of Rock Mechanics and Mining Sciences*, 158, 105179.
- Yan, L., Liu, P., Hua, P., Kasanin-Grubin, M., & Lin, K. (2018). Laboratory study of the effect of temperature difference on the disintegration of redbed softrock. *Physical Geography*, 40(2), 149-163.
- Zhou, Z., Cai, X., Ma, D., Chen, L., Wang, S., & Tan, L. (2019). Dynamic tensile properties of sandstone subjected to wetting and drying cycles. *Construction & Building Materials*, 182, 215-232.
- Zhu, J. J. & Deng, H. (2019). Durability classification of red beds rocks in central Yunnan based on particle size distribution and slaking procedure. *Journal of Mountain Science*. 16(3), 714-724.
- Zobeck, T. M., Sterk, G., Funk, R., Rajot, J., Stout, J. E., & Van Pelt, R. S. (2003). Measurement and data analysis methods for field-scale wind erosion studies and model validation. *Earth Surface Processes and Landforms*, 28(11), 1163-1188