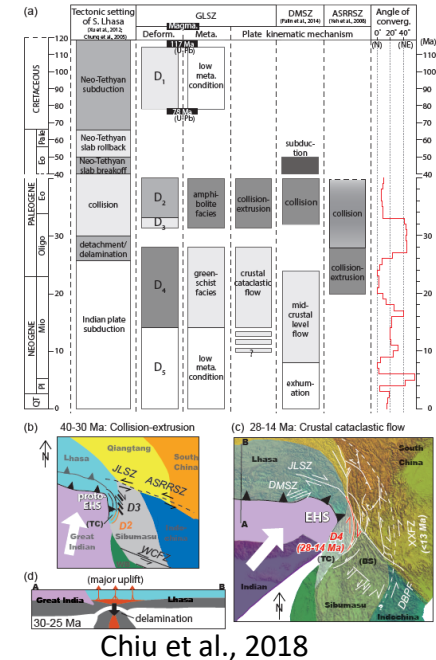
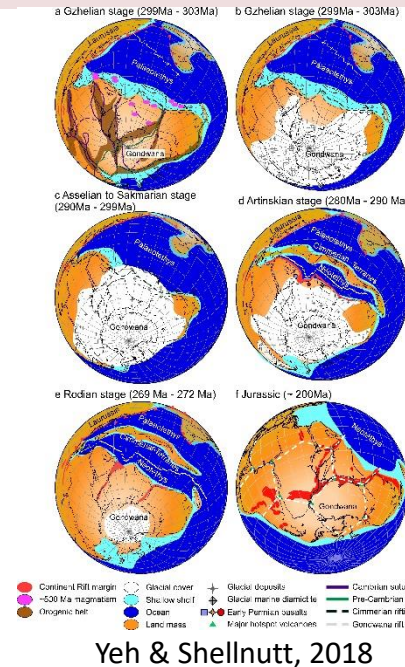


$^{40}\text{Ar}/^{39}\text{Ar}$ geochronology method is a powerful tool to decipher the timing of structural event of metamorphic rocks. It has been used to assign reliable ages to the Earth and numerous meteorites along with highly deformed rocks within plate scale shear zones. However, the geological meaning of Ar ages obtained from mineral separates were hotly debated as multiple factors as: internal deformation, recrystallization, fluid circulation or preservation of inherited argon pre-metamorphic signature by shielding effect can affect the outcome of Ar ages within one mineral grain. For one to successfully decipher heterogeneities of $^{40}\text{Ar}/^{39}\text{Ar}$ data that experienced complex metamorphic/deformation histories, detailed knowledge of microstructural/ micropetrological relationships of examined minerals, and numerical diffusion modeling of argon retention or loss are required.

Techniques used in study

- ✓ Structural & Microstructural geology
- ✓ Petrography
- ✓ Mineralogy
- ✓ Radioactive Isotope Geochemistry



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Publications (representative)

- TH Huang, **MW Yeh*** (2020) Structural Evolution of Extended Continental Crust Deciphered from the Cretaceous Batholith in SE China, a Kinmen Island Perspective. *Frontiers in Earth Science* 8, p.330
- K Suga, **MW Yeh** (2020) Secular variation of Early Cretaceous granitoids in Kyushu, SW Japan: the role of mélangé rocks as a possible magma source. *Frontiers in Earth Science* 8, p.95
- JG Shellnutt, **MW Yeh**, NHT Pham, TY Lee (2019) Cryptic regional magmatism in the southern Saharan Metacraton at 580 Ma. *Precambrian Research* 332, 105398
- Hue Anh Mai; Yu Lu Chan; **Meng Wan Yeh***; Tung Yi Lee (2018, Apr). Tectonic implications of Mesozoic magmatism to initiation of Cenozoic Basin Development within the passive South China Sea margin. *International Journal of Earth Sciences*, DOI 10.1007/s00531-017-1537-y P.35-56.
- Yu-Ping Chiu, **Meng-Wan Yeh***, Kuang-Hsuan Wu, Tung-Yi Lee, Ching-Hua Lo, Sun-Lin Chung, and Yoshiyuki Iizuka (2018). Transition from extrusion to flow tectonism around the Eastern Himalaya Syntaxis. *Geological Society of America Bulletin*

