

Wang, L., et al., 2023, Yangtze and Cathaysia blocks of South China: Their separate positions in Gondwana until early Paleozoic juxtaposition: *Geology*, <https://doi.org/10.1130/G51362.1>

Supplemental Material

Supplementary Text and Tables S1–S4.

Table S5.

Supplemental Material

This supplemental material includes the following three parts:

Part 1: Summary and sources of the reconstruction data used in Figure 1 (including Tables S1 to S4).

Part 2: Sources of data used in Figure 2

Part 3: Detrital zircon ages compiled in Figure 3 (Table S5)

Part 1: Summary and sources of the reconstruction data used in Figure 1 (Tables DR1-4)

Table. S1. Stratigraphic data

| Location | Strata and sections | Age (Ma) | Stratigraphic comparison | Reference |
|----------|--|-------------|---|---------------------|
| Yangtze | Late Neoproterozoic to early Cambrian sections | ca. 590–543 | Yangtze block has remarkably similar facies assemblages and carbonate platform architecture with NW India | Jiang et al. (2003) |

Table. S2. Biogeography data

| Location | Age | Species | Biogeographic affinity | Reference |
|----------|----------------|---------------------------------|-----------------------------------|---|
| Yangtze | Cambrian | trilobite | India | Peng et al. (2009) |
| Yangtze | Cambrian | brachiopod | NW India Karatau–Naryn terrane | Popov et al. (2015) |
| Yangtze | Cambrian | trilobite | NW India Karatau–Naryn | Álvaro et al. (2013) |
| Yangtze | early Cambrian | multiple species benthic faunas | Arabian sector NW India | Torsvik and Cocks (2013) |
| Yangtze | early Cambrian | multiple species | Himalaya (W India) Iran region | Burrett et al. (1990) Metcalfé (2013) Hughes (2016) |

Table. S3. Tectono-magmatic records and detrital minerals

| Location | Age | Data | Interpreted paleogeographic position/affinity | Reference |
|-----------|-----------------------------|--------------------|--|--|
| Yangtze | Ediacaran-Cambrian | detrital zircons | NW India | Yang et al. (2020) |
| Yangtze | Cambrian | detrital zircons | Turkey-Iran NW India | Chen et al. (2021) |
| Yangtze | Early Cambrian | detrital zircons | NW India | Gu et al. (2022) Han et al. (2022) Yao et al. (2022) |
| Cathaysia | Cryogenian (?) to Ediacaran | detrital zircons | Junction of E India, NW Australia and E Antarctica | Wang et al. (2018) |
| Cathaysia | Cryogenian (?) to Ediacaran | detrital zircons | W Australia and E Antarctica | Xue et al. (2019); (2021) |
| Cathaysia | Hornblendite (530 Ma) | metamorphic zircon | Belonging to Kuunga orogeny | Li et al. (2017) |
| Cathaysia | Cambrian | detrital zircons | Nexus between India, Antarctica and Australia | Xu et al. (2013) |
| Cathaysia | Cambrian | detrital zircons | N India | Yao et al. (2014) |
| Cathaysia | Ediacaran to Cambrian | detrital zircons | NE India | Qi et al. (2018; 2020) |
| Cathaysia | Cambrian | detrital monazite | NE India (Kuunga Orogen) | Xu et al. (2022) |

Table S4. Paleomagnetic data

| Sample location | Pole name | Formation | Age (Ma) | Plat (N) | Plong (E) | A ₉₅ | Interpreted paleolatitude | Reference |
|-----------------|-----------|------------------------------|-------------|----------|-----------|-----------------|---|-----------------------|
| Yangtze | Є2 | Douposi Fm. | 510 ± 11 | -51.3 | 166.0 | 6.8 | Latitude of NW Australia | Yang et al. (2004) |
| Yangtze | DSTM3 | Doushantuo Fm. | 595 ± 22 | 31.3 | 169.8 | 4.1 | Latitude of NW Australia | Jing et al. (2018) |
| Yangtze | DS3 | Doushantuo Fm. | 551.1 ± 0.7 | 25.9 | 185.5 | 6.7 | 23.5 ± 1.8° N Latitude of northern India | Zhang et al. (2015) |
| Yangtze | DST | Nantuo Fm. Doushantuo Fm. | 636.3 ± 4.9 | 0.6 | 196.9 | 7.1 | 3.0±4.5° N Latitude of West Australia | Macouin et al. (2004) |
| Yangtze | Nantuo | Nantuo Fm. | 636.3 ± 4.9 | 9.3 | 165.9 | 4.3 | Latitude of NW Australia | Zhang et al. (2013) |

Plat: latitude of the palaeopoles; Plong: longitude of the palaeopoles; A₉₅: radius of circle with 95 per cent confidence about the palaeopole.

Part 2: Sources of data used in Figure 2

For India and Yangtze:

Tonian data: Wang et al. (2020b), Yang et al. (2022), Yao et al. (2019)

Cryogenian to Early Cambrian stratigraphy: Jiang et al. (2003), Wang et al. (2020b)

Early Cambrian stratigraphy in west Yangtze: Gu et al. (2022) and Yao et al. (2022)

Silurian stratigraphy in east Yangtze: Li et al. (2013)

For Tarim

Tonian to Ediacaran data: Zhang et al. (2023) and references therein, Wu et al. (2022) and references therein

Early Paleozoic stratigraphic data: He et al. (2016)

For West Cathaysia (modified from Wang et al., 2022)

Early Tonian arc/back-arc data: Wang et al. (2013)

Late Tonian arc/back-arc data: Jiang et al. (2019), Wang et al. (2020a)

Cryogenian to Ediacaran stratigraphy: Wang (2003), Qi et al. (2018; 2020)

Cambrian and Ordovician stratigraphy: BGMRFJ (1985); BGMRGD (1988); BGMRGX (1985); BGMRJX (1984)

~530 Ma metamorphic zircon age: Li et al. (2017)

Break between Ediacaran and Cambrian strata: from this study, Fig. 3D.

For Lhasa terrane

Tonian to Ediacaran magmatic data: Hu et al. (2018) and reference therein.

650 Ma HP granulite age data: Zhang et al. (2012)

Stratigraphic data: Dong et al. (2010), Hu et al. (2019), Zhou et al. (2019), Guo et al. (2017)

For North Australia

Tonian to early Paleozoic data (based on Georgina and Ord basin): Maidment et al. (2007), Yao et al. (2018)

Metamorphic data: Bagas (2004)

Part 3: Detrital zircon ages compiled in Figure 3 (Table S5, see separate Excel file).

Note 1: The Excel file includes detrital zircon age data from the late Neoproterozoic to Cambrian sequences from western Yangtze, southeastern Yangtze, northern India (Himalaya region), Tarim, West Cathaysia, Lhasa terrane, and north Australia. There are a total of 15 sheets in the Excel file, each corresponding to a part in Fig. 3.

Note 2: For Fig. 3, we use the $^{207}\text{Pb}/^{206}\text{Pb}$ ages for zircons older than ~1.5 Ga and $^{206}\text{Pb}/^{238}\text{U}$ ages for those younger, following Spencer et al. (2016). As 1300 – 900 Ma is one of the main populations in our detrital zircon age data set, utilizing a cutoff age in this age range (e.g. 1.0 Ga) would not be practical. Age spectra are visualized using Kernel Density Estimation (densityplotter; Vermeesch, 2012), with bandwidth and bin width of 40 and 20, respectively.

References

(including those in Table S5)

- Álvaro, J. J., Ahlberg, P., Babcock, L. E., Bordonaro, O. L., Choi, D. K., Cooper, R. A., Ergaliev, G. K., Gapp, I. W., Pour, M. G., Hughes, N. C., Jago, J. B., Korovnikov, I., Laurie, J. R., Lieberman, B. S., Paterson, J. R., Pegel, T. V., Popov, L. E., Rushton, A. W. A., Sukhov, S. S., Tortello, M. F., Zhou, Z., and Žylińska, A., 2013, Chapter 19 Global Cambrian trilobite palaeobiogeography assessed using parsimony analysis of endemism: Geological Society, London, Memoirs, v. 38, no. 1, p. 273-296. "<https://doi.org/doi:10.1144/M38.19>"
- Bagas, L., 2004, Proterozoic evolution and tectonic setting of the northwest Paterson Orogen, Western Australia: *Precambrian Research*, v. 128, no. 3-4, p. 475-496
- BGMRFJ, 1985, (Bureau of Geology and Mineral Resources of Fujian province), *Regional Geology of Fujian Province*, Geological Publishing House Beijing.
- BGMRGD, 1988, (Bureau of Geology and Mineral Resources of Guangdong province), *Regional Geology of Guangdong Province*, Geological Publishing House Beijing.
- BGMRGX, 1985, (Bureau of Geology and Mineral Resources of Guangxi province), *Regional Geology of Guangxi Autonomous Region*, Geological Publishing House Beijing.
- BGMRJX, 1984, (Bureau of Geology and Mineral Resources of Jiangxi province), *Regional Geology of Jiangxi Province*, Geological Publishing House Beijing.
- Burrett, C., Long, J., and Stait, B., 1990, Early-Middle Palaeozoic biogeography of Asian terranes derived from Gondwana: Geological Society, London, Memoirs, v. 12, no. 1, p. 163-174
- Chen, Q., Sun, M., Long, X., Zhao, G., Wang, J., Yu, Y., and Yuan, C., 2018, Provenance study for the Paleozoic sedimentary rocks from the west Yangtze Block: Constraint on possible link of South China to the Gondwana supercontinent reconstruction: *Precambrian Research*, v. 309, p. 271-289
- Chen, Q., Zhao, G., and Sun, M., 2021, Protracted northward drifting of South China during the assembly of Gondwana: Constraints from the spatial-temporal provenance comparison of Neoproterozoic–Cambrian strata: *Geological Society of America Bulletin*, v. 133, no. 9-10, p. 1947-1963. "<https://doi.org/10.1130/b35791.1>"
- Chen, W.-y., Zhu, G.-y., Zhang, K.-J., Zhang, Y.-j., Yan, H.-h., Du, D.-d., Zhang, Z.-y., and Xia, B., 2020, Late Neoproterozoic intracontinental rifting of the Tarim craton, NW China: An integrated geochemical, geochronological and Sr–Nd–Hf isotopic study of siliciclastic rocks and basalts from deep drilling cores: *Gondwana Research*, v. 80, p. 142-156
- Cui, X., Zhu, W., Fitzsimons, I., He, J., Lu, Y., Wang, X., Ge, R., Zheng, B., and Wu, X., 2015, U–Pb age and Hf isotope composition of detrital zircons from Neoproterozoic sedimentary units in southern Anhui Province, South China: implications for the provenance, tectonic evolution and glacial history of the eastern Jiangnan Orogen: *Precambrian Research*, v. 271, p. 65-82
- Ding, H., Ma, D., Lin, Q., and Jing, L., 2015, Age and nature of Cryogenian diamictites at Aksu, Northwest China: implications for Sturtian tectonics and climate: *International Geology Review*, v. 57, no. 16, p. 2044-2064
- Dong, X., Zhang, Z., and Santosh, M., 2010, Zircon U–Pb chronology of the Nyingtri group, southern Lhasa terrane, Tibetan Plateau: implications for Grenvillian and Pan-African provenance and Mesozoic–Cenozoic metamorphism: *The Journal of Geology*, v. 118, no. 6, p. 677-690
- Gehrels, G., Kapp, P., DeCelles, P., Pullen, A., Blakey, R., Weislogel, A., Ding, L., Guynn, J., Martin, A., and McQuarrie, N., 2011, Detrital zircon geochronology of pre - Tertiary strata in the Tibetan - Himalayan orogen: *Tectonics*, v. 30, no. 5

- Gu, Z., Jian, X., Watts, A. B., Zhai, X., Liu, G., and Jiang, H., 2022, Formation and evolution of an Early Cambrian foreland basin in the northwest Yangtze Block, South China: *Journal of the Geological Society*, p. jgs2022-2127
- Guo, C., Dong, S., and Li, Z., 2019, Detrital zircon U-Pb geochronology of Upper Cambrian-Lower Silurian sandstone in the Wushi area, northwestern margin of Tarim Basin: implications for provenance system and tectonic evolution: *Acta Geologica Sinica*, v. 93, no. 11, p. 2759-2769
- Guo, L., Zhang, H.-F., Harris, N., Xu, W.-C., and Pan, F.-B., 2017, Detrital zircon U-Pb geochronology, trace-element and Hf isotope geochemistry of the metasedimentary rocks in the Eastern Himalayan syntaxis: Tectonic and paleogeographic implications: *Gondwana Research*, v. 41, p. 207-221. “<https://doi.org/10.1016/j.gr.2015.07.013>”
- Han, Y., Ran, B., Santosh, M., Luo, C., Liu, S., Li, Z., Ye, Y., Song, J., Wang, H., and Ding, Y., 2022, Linking South China Plate to Arabian margin of Gondwana: Significance for Cambrian global plate reconstruction: *Journal of Asian Earth Sciences*, v. 237, p. 105341
- He, J., Zhu, W., Ge, R., Zheng, B., and Wu, H., 2014, Detrital zircon U-Pb ages and Hf isotopes of Neoproterozoic strata in the Aksu area, northwestern Tarim Craton: implications for supercontinent reconstruction and crustal evolution: *Precambrian Research*, v. 254, p. 194-209
- Hofmann, M., Linnemann, U., Rai, V., Becker, S., Gärtner, A., and Sagawe, A., 2011, The India and South China cratons at the margin of Rodinia—Synchronous Neoproterozoic magmatism revealed by LA-ICP-MS zircon analyses: *Lithos*, v. 123, no. 1-4, p. 176-187
- Hu, P.-y., Zhai, Q.-g., Wang, J., Tang, Y., Wang, H.-t., and Hou, K.-j., 2018a, Precambrian origin of the North Lhasa terrane, Tibetan Plateau: Constraint from early Cryogenian back-arc magmatism: *Precambrian Research*, v. 313, p. 51-67. “<https://doi.org/10.1016/j.precamres.2018.05.014>”
- Hu, P.-y., Zhai, Q.-g., Zhao, G.-c., Wang, J., Tang, Y., Wang, H.-t., Zhu, Z.-c., Wang, W., and Wu, H., 2018b, Early Neoproterozoic (ca. 900 Ma) rift sedimentation and mafic magmatism in the North Lhasa Terrane, Tibet: Paleogeographic and tectonic implications: *Lithos*, v. 320, p. 403-415
- Hu, P.-y., Zhai, Q.-g., Zhao, G.-c., Wang, J., Tang, Y., Zhu, Z.-c., and Wu, H., 2019, The North Lhasa terrane in Tibet was attached with the Gondwana before it was drafted away in Jurassic: Evidence from detrital zircon studies: *Journal of Asian Earth Sciences*, v. 185. “<https://doi.org/10.1016/j.jseas.2019.104055>”
- Huang, R., Liu, J., Yang, Z., Jiao, W., and Li, Y., 2016, Detrital Zircon Geochronology and Directional Structures of Cambrian Sediments in Jiangshan of Zhejiang Province and Their Palaeogeographic Significance: *Geological Journal of China Universities*, v. 22, no. 3, p. 474
- Huang, R., Liu, J., Yang, Z., Li, Y., Yang, A., and Jiao, W., 2020, Landscape configuration of eastern South China during the late Neoproterozoic: New constraints from sedimentary indices and zircon U-Pb-Hf isotopes of the southeastern margin of the Yangtze Block: *Precambrian Research*, v. 347, p. 105839
- Huang, R., Liu, J., Yang, Z., Yang, A., Li, Y., and Jiao, W., 2021, Ediacaran-Ordovician landscape of eastern South China: Constraints from sedimentary indices and detrital zircon U-Pb-Hf isotopes from the southeastern margin of the Yangtze Block: *Sedimentary Geology*, v. 416, p. 105865
- Hughes, N. C., 2016, The Cambrian palaeontological record of the Indian subcontinent: *Earth-Science Reviews*, v. 159, p. 428-461
- Jiang, G., Sohl, L. E., and Christie-Blick, N., 2003, Neoproterozoic stratigraphic comparison of the Lesser Himalaya (India) and Yangtze block (south China): Paleogeographic implications: *Geology*, v. 31, no. 10. “<https://doi.org/10.1130/g19790.1>”

- Jiang, Y., Zhao, X., Zhang, Y., Xing, G., Xu, M., Liu, H., and Liu, Y., 2019, Neoproterozoic arc volcanic rocks of the Nanping-Ninghua tectonic belt, South China: Implications for the collision between the North and South Wuyi blocks: *Geological Journal*, v. 54, no. 4, p. 2679-2692. "<https://doi.org/10.1002/gj.3318>"
- Jing, X., Yang, Z., Tong, Y., Wang, H., and Xu, Y., 2018, Identification of multiple magnetizations of the Ediacaran strata in South China: *Geophysical Journal International*, v. 212, no. 1, p. 54-75. "<https://doi.org/10.1093/gji/ggx396>"
- Li, H.-B., Jia, D., Wu, L., Zhang, Y., Yin, H.-W., Wei, G.-Q., and Li, B.-L., 2013, Detrital zircon provenance of the Lower Yangtze foreland basin deposits: constraints on the evolution of the early Palaeozoic Wuyi–Yunkai orogenic belt in South China: *Geological Magazine*, v. 150, no. 6, p. 959-974. "<https://doi.org/10.1017/s0016756812000969>"
- Li, L., Lin, S., Xing, G., Jiang, Y., and He, J., 2017, First Direct Evidence of Pan-African Orogeny Associated with Gondwana Assembly in the Cathaysia Block of Southern China: *Sci Rep*, v. 7, no. 1, p. 794. "<https://doi.org/10.1038/s41598-017-00950-x>"
- Li, Z., Qiu, N., Chang, J., and Yang, X., 2015, Precambrian evolution of the Tarim Block and its tectonic affinity to other major continental blocks in China: New clues from U–Pb geochronology and Lu–Hf isotopes of detrital zircons: *Precambrian Research*, v. 270, p. 1-21
- Lu, Y., Zhu, W., Ge, R., Zheng, B., He, J., and Diao, Z., 2017, Neoproterozoic active continental margin in the northwestern Tarim Craton: Clues from Neoproterozoic (meta) sedimentary rocks in the Wushi area, northwest China: *Precambrian Research*, v. 298, p. 88-106
- Luo, L., Zeng, L., Wang, K., Yu, X., Li, Y., Zhu, C., and Liu, S., 2020, Provenance investigation for the Cambrian–Ordovician strata from the northern margin of the western Yangtze Block: implications for locating the South China Block in Gondwana: *Geological Magazine*, v. 157, no. 4, p. 551-572
- Luo, L., Zeng, L., Wang, K., Yu, X., Zhang, X., Li, Y., and Zhu, C., 2019, Detrital zircon provenance investigation from the Neoproterozoic successions of the South China Block: Paleogeographic implications: *Journal of Geodynamics*, v. 124, p. 25-37. "<https://doi.org/10.1016/j.jog.2019.01.011>"
- Macouin, M., Besse, J., Ader, M., Gilder, S., Yang, Z., Sun, Z., and Agrinier, P., 2004, Combined paleomagnetic and isotopic data from the Doushantuo carbonates, South China: implications for the “snowball Earth” hypothesis: *Earth and Planetary Science Letters*, v. 224, no. 3-4, p. 387-398
- Maidment, D., Williams, I., and Hand, M., 2007, Testing long - term patterns of basin sedimentation by detrital zircon geochronology, Centralian Superbasin, Australia: *Basin Research*, v. 19, no. 3, p. 335-360
- McKenzie, N. R., Hughes, N. C., Myrow, P. M., Xiao, S., and Sharma, M., 2011, Correlation of Precambrian–Cambrian sedimentary successions across northern India and the utility of isotopic signatures of Himalayan lithotectonic zones: *Earth and Planetary Science Letters*, v. 312, no. 3-4, p. 471-483
- Metcalfe, I., 2013, Gondwana dispersion and Asian accretion: Tectonic and palaeogeographic evolution of eastern Tethys: *Journal of Asian Earth Sciences*, v. 66, p. 1-33
- Myrow, P. M., Hughes, N. C., Goodge, J. W., Fanning, C. M., Williams, I. S., Peng, S., Bhargava, O. N., Parcha, S. K., and Pogue, K. R., 2010, Extraordinary transport and mixing of sediment across Himalayan central Gondwana during the Cambrian–Ordovician: *Geological Society of America Bulletin*, v. 122, no. 9-10, p. 1660-1670. "<https://doi.org/10.1130/b30123.1>"
- Myrow, P. M., Hughes, N. C., McKenzie, N. R., Pelgay, P., Thomson, T. J., Haddad, E. E., and Fanning, C. M., 2016, Cambrian–Ordovician orogenesis in Himalayan equatorial Gondwana: *Geological Society*

- of America Bulletin, v. 128, no. 11-12, p. 1679-1695. "<https://doi.org/10.1130/b31507.1>"
- Peng, S., Hughes, N. C., Heim, N. A., Sell, B. K., Zhu, X., Myrow, P. M., and Parcha, S. K., 2009, Cambrian trilobites from the Parahio and Zanskar valleys, Indian Himalaya: *Journal of Paleontology*, v. 83, no. sp71, p. 1-95
- Popov, L. E., Holmer, L. E., Hughes, N. C., Ghobadi Pour, M., and Myrow, P. M., 2015, Himalayan Cambrian brachiopods: *Papers in Palaeontology*, v. 1, no. 4, p. 345-399
- Qasim, M., Ding, L., Khan, M. A., Umar, M., Jadoon, I. A. K., Haneef, M., Baral, U., Cai, F., Shah, A., Yao, W., and Santosh, M., 2017, Late Neoproterozoic–Early Palaeozoic stratigraphic succession, Western Himalaya, North Pakistan: Detrital zircon provenance and tectonic implications: *Geological Journal*, v. 53, no. 5, p. 2258-2279. "<https://doi.org/10.1002/gj.3063>"
- Qi, L., Cawood, P. A., Xu, Y., Du, Y., Zhang, H., and Zhang, Z., 2020, Linking South China to North India from the late Tonian to Ediacaran: Constraints from the Cathaysia Block: *Precambrian Research*, v. 350. "<https://doi.org/10.1016/j.precamres.2020.105898>"
- Qi, L., Xu, Y., Cawood, P. A., and Du, Y., 2018, Reconstructing Cryogenian to Ediacaran successions and paleogeography of the South China Block: *Precambrian Research*, v. 314, p. 452-467. "<https://doi.org/10.1016/j.precamres.2018.07.003>"
- Song, F., Niu, Z.-J., He, Y.-Y., Algeo, T. J., and Yang, W.-Q., 2020, Geographic proximity of Yangtze and Cathaysia blocks during the late Neoproterozoic demonstrated by detrital zircon evidence: *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 558, p. 109939. "<https://doi.org/10.1016/j.palaeo.2020.109939>"
- Spencer, C. J., Kirkland, C. L., and Taylor, R. J., 2016, Strategies towards statistically robust interpretations of in situ U–Pb zircon geochronology: *Geoscience Frontiers*, v. 7, no. 4, p. 581-589
- Sun, W.-H., Zhou, M.-F., Gao, J.-F., Yang, Y.-H., Zhao, X.-F., and Zhao, J.-H., 2009, Detrital zircon U–Pb geochronological and Lu–Hf isotopic constraints on the Precambrian magmatic and crustal evolution of the western Yangtze Block, SW China: *Precambrian Research*, v. 172, no. 1-2, p. 99-126
- Torsvik, T. H., and Cocks, L. R. M., 2013, Chapter 2 New global palaeogeographical reconstructions for the Early Palaeozoic and their generation: *Geological Society, London, Memoirs*, v. 38, no. 1, p. 5-24. "<https://doi.org/10.1144/m38.2>"
- Turner, C. C., Meert, J. G., Pandit, M. K., and Kamenov, G. D., 2014, A detrital zircon U–Pb and Hf isotopic transect across the Son Valley sector of the Vindhyan Basin, India: implications for basin evolution and paleogeography: *Gondwana Research*, v. 26, no. 1, p. 348-364
- Vandyk, T., Wu, G., Davies, B., Xiao, Y., Li, M., Shields, G., and Le Heron, D., 2019, Temperate glaciation on a Snowball Earth: Glaciological and palaeogeographic insights from the Cryogenian Yuermeinak Formation of NW China: *Precambrian Research*, v. 331, p. 105362
- Vermeesch, P., 2012, On the visualisation of detrital age distributions: *Chemical Geology*, v. 312-313, p. 190-194. "<https://doi.org/10.1016/j.chemgeo.2012.04.021>"
- Wang, J., 2003, History of Neoproterozoic rift basins in South China: implications for Rodinia break-up: *Precambrian Research*, v. 122, no. 1-4, p. 141-158. "[https://doi.org/10.1016/s0301-9268\(02\)00209-7](https://doi.org/10.1016/s0301-9268(02)00209-7)"
- Wang, L., Zhang, K., Lin, S., He, W., and Yin, L., 2022, Origin and age of the Shenshan tectonic mélange in the Jiangshan-Shaoxing-Pingxiang Fault and late Early Paleozoic juxtaposition of the Yangtze Block and the West Cathaysia terrane, South China: *Geological Society of America Bulletin*, v. 134, no. 1-2, p. 113-129. "<https://doi.org/10.1130/B35963.1>"
- Wang, L., Zhang, K., Lin, S., He, W., Kou, X., and Zhou, X., 2020a, Turbidite record of a middle Neoproterozoic active continental margin in the West Cathaysia terrane, South China: Implications

- for the relationships between the Yangtze and Cathaysia blocks and their positions in Rodinia: *Precambrian Research*, v. 337. “<https://doi.org/10.1016/j.precamres.2019.105457>”
- Wang, L.-J., Yu, J.-H., Griffin, W., and O'Reilly, S., 2012, Early crustal evolution in the western Yangtze Block: evidence from U–Pb and Lu–Hf isotopes on detrital zircons from sedimentary rocks: *Precambrian Research*, v. 222, p. 368-385
- Wang, W., Cawood, P. A., Pandit, M. K., Xia, X., Raveggi, M., Zhao, J., Zheng, J., and Qi, L., 2020b, Fragmentation of South China from greater India during the Rodinia-Gondwana transition: *Geology*, v. 49, no. 2, p. 228-232. “<https://doi.org/10.1130/g48308.1>”
- Wang, W., Zeng, M.-F., Zhou, M.-F., Zhao, J.-H., Zheng, J.-P., and Lan, Z.-F., 2018, Age, provenance and tectonic setting of Neoproterozoic to early Paleozoic sequences in southeastern South China Block: Constraints on its linkage to western Australia-East Antarctica: *Precambrian Research*, v. 309, p. 290-308. “<https://doi.org/10.1016/j.precamres.2017.03.002>”
- Wang, Y., Zhang, A., Cawood, P. A., Fan, W., Xu, J., Zhang, G., and Zhang, Y., 2013, Geochronological, geochemical and Nd–Hf–Os isotopic fingerprinting of an early Neoproterozoic arc–back-arc system in South China and its accretionary assembly along the margin of Rodinia: *Precambrian Research*, v. 231, p. 343-371. “<https://doi.org/10.1016/j.precamres.2013.03.020>”
- Wang, Y., Zhang, F., Fan, W., Zhang, G., Chen, S., Cawood, P. A., and Zhang, A., 2010, Tectonic setting of the South China Block in the early Paleozoic: Resolving intracontinental and ocean closure models from detrital zircon U-Pb geochronology: *Tectonics*, v. 29, no. 6, p. n/a-n/a. “<https://doi.org/10.1029/2010tc002750>”
- Wu, G., Xiao, Y., Bonin, B., Ma, D., Li, X., and Zhu, G., 2018, Ca. 850 Ma magmatic events in the Tarim Craton: Age, geochemistry and implications for assembly of Rodinia supercontinent: *Precambrian Research*, v. 305, p. 489-503
- Wu, H.-X., Zhang, F.-Q., Dilek, Y., Chen, H.-L., Wang, C.-Y., Lin, X.-B., Cheng, X.-G., and Zhu, K.-Y., 2022, Mid–Neoproterozoic collision of the Tarim Craton with the Yili–Central Tianshan Block towards the final assembly of Supercontinent Rodinia: A new model: *Earth-Science Reviews*, v. 228, p. 103989
- Wu, L., Guan, S., Ren, R., Zhang, C., and Feng, X., 2021, Neoproterozoic glaciations and rift evolution in the northwest Tarim Craton, China: new constraints from geochronological, geochemical, and geophysical data: *International Geology Review*, v. 63, no. 1, p. 1-20
- Wu, L., Jia, D., Li, H., Deng, F. E. I., and Li, Y., 2010, Provenance of detrital zircons from the late Neoproterozoic to Ordovician sandstones of South China: implications for its continental affinity: *Geological Magazine*, v. 147, no. 6, p. 974-980. “<https://doi.org/10.1017/s0016756810000725>”
- Xu, Y., Cawood, P. A., Du, Y., Hu, L., Yu, W., Zhu, Y., and Li, W., 2013, Linking south China to northern Australia and India on the margin of Gondwana: Constraints from detrital zircon U-Pb and Hf isotopes in Cambrian strata: *Tectonics*, v. 32, no. 6, p. 1547-1558. “<https://doi.org/10.1002/tect.20099>”
- Xu, Y., Liang, X., Cawood, P. A., Zi, J.-W., Zhang, H., Liu, J., and Du, Y., 2022, Revisiting the paleogeographic position of South China in Gondwana by geochemistry and UPb ages of detrital monazite grains from Cambrian sedimentary rocks: *Lithos*, v. 430, p. 106879
- Xue, E.-K., Wang, W., Huang, S.-F., and Lu, G.-M., 2019, Detrital zircon U-Pb-Hf isotopes and whole-rock geochemistry of neoproterozoic-cambrian successions in the Cathaysia Block of South China: Implications on paleogeographic reconstruction in supercontinent: *Precambrian Research*, v. 331. “<https://doi.org/10.1016/j.precamres.2019.105348>”

- Xue, E.-K., Wang, W., Zhou, M.-F., Pandit, M. K., Huang, S.-F., and Lu, G.-M., 2021, Late Neoproterozoic–early Paleozoic basin evolution in the Cathaysia Block, South China: Implications of spatio-temporal provenance changes on the paleogeographic reconstructions in supercontinent cycles: *Geological Society of America Bulletin*, v. 133, no. 3-4, p. 717-739
- Yang, C., Li, X. H., Li, Z. X., Zhu, M., and Lu, K., 2020, Provenance Evolution of Age - Calibrated Strata Reveals When and How South China Block Collided With Gondwana: *Geophysical Research Letters*, v. 47, no. 19. “<https://doi.org/10.1029/2020gl090282>”
- Yang, F., Zhou, X., Hu, Y., Yang, X., and Yang, R., 2022, Neoproterozoic extensional basins and its control on the distribution of hydrocarbon source rocks in the Yangtze Craton, South China: *Geosystems and Geoenvironment*, v. 1, no. 1, p. 100015
- Yang, Z., Sun, Z., Yang, T., and Pei, J., 2004, A long connection (750–380 Ma) between South China and Australia: paleomagnetic constraints: *Earth and Planetary Science Letters*, v. 220, no. 3-4, p. 423-434. “[https://doi.org/10.1016/s0012-821x\(04\)00053-6](https://doi.org/10.1016/s0012-821x(04)00053-6)”
- Yao, W. H., Li, Z. X., Li, W. X., Li, X. H., and Yang, J. H., 2014, From Rodinia to Gondwanaland: A tale of detrital zircon provenance analyses from the southern Nanhua Basin, South China: *American Journal of Science*, v. 314, no. 1, p. 278-313. “<https://doi.org/10.2475/01.2014.08>”
- Yao, W., Li, Z.-X., Spencer, C. J., and Martin, E. L., 2018, Indian-derived sediments deposited in Australia during Gondwana assembly: *Precambrian Research*, v. 312, p. 23-37. “<https://doi.org/10.1016/j.precamres.2018.05.006>”
- Yao, W., Zhu, X., Wang, J., Zhou, X., Spencer, C. J., Wang, Z.-J., and Li, Z.-X., 2022, Position of South China and Indochina along northern Gondwana margin during the Ediacaran–Silurian period: *Precambrian Research*, v. 379, p. 106809
- Yao, W.-H., Li, Z.-X., and Li, W.-X., 2015, Was there a Cambrian ocean in South China?—Insight from detrital provenance analyses: *Geological Magazine*, v. 152, no. 1, p. 184-191
- Yu, T., Wang, Z., Ma, C., Wang, D., Wang, T., and Huang, F., 2021, Provenance analysis and Paleogeographic significance of the Cambrian in NW Zhejiang: evidence from sedimentology and detrital chronology: *Acta Geologica Sinica*, v. 95, no. 11, p. 3266-3281
- Zhang, C.-L., and Li, H.-K., 2023, The Tarim Craton in the Northwest of China: *International Geology Review*, v. 65, no. 4, p. 607-643
- Zhang, C.-L., Zou, H.-B., Ye, X.-T., and Chen, X.-Y., 2018, Tectonic evolution of the NE section of the Pamir Plateau: New evidence from field observations and zircon U-Pb geochronology: *Tectonophysics*, v. 723, p. 27-40
- Zhang, S., Evans, D. A., Li, H., Wu, H., Jiang, G., Dong, J., Zhao, Q., Raub, T. D., and Yang, T., 2013, Paleomagnetism of the late Cryogenian Nantuo Formation and paleogeographic implications for the South China Block: *Journal of Asian Earth Sciences*, v. 72, p. 164-177
- Zhang, S., Li, H., Jiang, G., Evans, D. A. D., Dong, J., Wu, H., Yang, T., Liu, P., and Xiao, Q., 2015, New paleomagnetic results from the Ediacaran Doushantuo Formation in South China and their paleogeographic implications: *Precambrian Research*, v. 259, p. 130-142. “<https://doi.org/10.1016/j.precamres.2014.09.018>”
- Zhang, Z., Dong, X., Liu, F., Lin, Y., Yan, R., He, Z., and Santosh, M., 2012, The making of Gondwana: discovery of 650 Ma HP granulites from the North Lhasa, Tibet: *Precambrian Research*, v. 212, p. 107-116
- Zheng, B., Zhu, W., Ge, R., Wu, H., He, J., and Lu, Y., 2020, Proterozoic tectonic evolution of the Tarim Craton: New insights from detrital zircon U-Pb and Lu-Hf isotopes of metasediments in the Kuruktag

- area: *Precambrian Research*, v. 346, p. 105788
- Zhou, X., Zheng, J., Li, Y., Griffin, W. L., Xiong, Q., Moghadam, H. S., and O'Reilly, S. Y., 2019, Neoproterozoic sedimentary rocks track the location of the Lhasa Block during the Rodinia breakup: *Precambrian Research*, v. 320, p. 63-77. "<https://doi.org/10.1016/j.precamres.2018.10.005>"
- Zhu, G., Liu, H., Zhang, T., Chen, W., Xiao, J., Zhao, K., and Yan, H., 2020, Internal versus external locations of the South China Craton within Rodinia during the Cryogenian: Provenance history of the Nanhua Basin: *Geological Society of America Bulletin*, v. 133, no. 3-4, p. 559-579. "<https://doi.org/10.1130/b35619.1>"
- Zhu, W., Zheng, B., Shu, L., Ma, D., Wu, H., Li, Y., Huang, W., and Yu, J., 2011, Neoproterozoic tectonic evolution of the Precambrian Aksu blueschist terrane, northwestern Tarim, China: insights from LA-ICP-MS zircon U–Pb ages and geochemical data: *Precambrian Research*, v. 185, no. 3-4, p. 215-230