



洪 崇 勝 副 研 究 員

TEL : +886-2-2783-9910 ext. 1424

FAX : +886-2-2783-9871

E-mail : chshong@earth.sinica.edu.tw

研究領域：古地磁學

〔 學 歷 〕

- 1991：臺灣大學海洋研究所 博士
- 1984：臺灣大學海洋研究所 碩士
- 1977：成功大學地球科學系 學士

〔 經 歷 〕

- 2002/06 -：中央研究院 地球科學研究所 副研究員
- 1994/05 - 2002/06：中央研究院 地球科學研究所 助研究員
- 1984/10 - 1994/04：中央研究院 地球科學研究所 研究助理
- 1979/08 - 1982/01：成功大學 地球科學系 助教

〔 學 會 / 榮 譽 〕

- 中國地質學會
- 中國地球物理學會

〔 著 作 〕

Refereed Papers:

1. Vaucher, R., Dashtgard, S.E., **Horng, CS.** *et al.* Insolation-paced sea level and sediment flux during the early Pleistocene in Southeast Asia. *Sci Rep* **11**, 16707 (2021). <https://doi.org/10.1038/s41598-021-96372-x>
2. Lai, L. S. H., Dorsey, R. J., **Horng, C. S.**, Chi, W. R., Shea, K. S., & Yen, J. Y. (2021). Polygenetic mélange in the retrowedge foredeep of an active arc-continent collision, Coastal Range of eastern Taiwan. *Sedimentary Geology*, *418*, 105901. <https://doi.org/10.1016/j.sedgeo.2021.105901>

3. Hsiung, K. H., Kanamatsu, T., Ikehara, K., Usami, K., **Horng, C. S.**, Ohkouchi, N., ... & Murayama, M. (2021). X-ray fluorescence core scanning, magnetic signatures, and organic geochemistry analyses of Ryukyu Trench sediments: turbidites and hemipelagites. *Progress in Earth and Planetary Science*, 8(1), 1-17.
4. Huang Steven Jyh-Jaan, Kuo-Yen Wei, Ludvig Lowemark*, Sheng-Rong Song, Chih-Kai Chuang, Tien-Nan Yang, Meng-Yang Lee, Yu-Be Chen, **Chorng-Shern Horng**, Kuo-Hang Chen, Teh-Quei Lee, (2019), What caused the cultural hiatus in the Uron-Age Kiwulan Site, northeastern Taiwan? *QUATERNARY INTERNATIONAL*, 514, 186-194, DOI: 10.1016/j.quaint.2018.07.005
5. Rochette, P., R. Braucher, L. Folco, **C. S. Horng**, G. Aumaitre, D. L. Bourles, K. Keddadouche, (2019), Be-10 in Australasian microtektites compared to tektites: Size and geographic controls: Reply, *GEOLOGY*, 47
6. Pi Ju-Lien, Chen-Feng You*, **Chorng-Shern Horng**, Huai-Jen Yang, Chun-Jung Chen, (2019), The redistribution of B concentration and its isotopes during low-grade metamorphism: Observations in metapelites from the Central Range, Taiwan, *CHEMICAL GEOLOGY*, 520, 1-10, DOI: 10.1016/j.chemgeo.2019.05.007
7. Rochette, P., R. Braucher, L. Folco, **C. S. Horng**, G. Aumaitre, D. L. Bourles, K. Keddadouche, (2019), Be-10 in Australasian microtektites compared to tektites: Size and geographic controls, *GEOLOGY*, 47(4), E460-E460, DOI: 10.1130/G46156Y.1
8. **Horng Chorng-Shern** and Andrew, P. Roberts, (2018), The low-temperature Besnus magnetic transition: Signals due to monoclinic and hexagonal pyrrhotite, *Geochemistry, Geophysics, Geosystems*, 19, 3364-3375. DOI: 10.1029/2017GC007394
9. Rochette P., R. Braucher, L. Folco, **C.-S. Horng**, and ASTER Team, (2018), Be10 in Australasian microtektites compared to tektites: Size and geographic controls, *METEORITICS & PLANETARY SCIENCE* 53, 6242-6242 (Meeting Abstract)
10. Rochette, P., R. Braucher, L. Folco, **C.-S. Horng**, G. Aumaitre, D. L. Bourles, K. Keddadouche, (2018), Be-10 in Australasian microtektites compared to tektites: Size and geographic controls, *GEOLOGY*, 46(9), 803-806, DOI: 10.1130/G45038.1.
11. Zhu Xin, Bo Wang, Yan Chen, Hongsheng Liu, **Chorng-shern Horng**, Flavien Choulet, Michel Faure, Liangshu Shu, Zhenhua Xue , (2018), First Early Permian paleomagnetic pole for the Yili Block and its implications for

- late Paleozoic post-orogenic kinematic evolution of the SW Central Asian Orogenic Belt, *Tectonics*, 37(6), 1709-1732, DOI: 10.1029/2017TC004642
12. **Horng Chorn-Shern**, (2018), Unusual Magnetic Properties of Sedimentary Pyrrhotite in Methane-Seepage Sediments: Comparison with Metamorphic Pyrrhotite and Sedimentary Greigite, *Journal of Geophysical Research: Solid Earth*, 123(6), 4601-4617, <https://doi.org/10.1002/2017JB015262>
 13. Rudmin Maxim, Andrew P. Roberts, **C.-S. Horng**, Aleksey Mazurov, Olesya Savinova, Aleksey Ruban, Roman Kashapov, Maxim Veklich, (2017), Ferrimagnetic iron sulfide formation and methane venting across the Paleocene-Eocene Thermal Maximum in shallow marine sediments, ancient West Siberian Sea, *Geochemistry Geophysics Geosystems*, 19(1), 21-42. DOI: 10.1002/2017GC007208.
 14. Simon, Q, D. L. Bournès, N. Thouveny, **C.S. Horng**, J.-P. Valet, F. Bassinot, S. Choy, (2017), Cosmogenic signature of geomagnetic reversals and excursions from the Reunio event to the Matuyama-Brunhes transition (0.7-2.14 Ma interval), *Earth and Planetary Science Letters*.482, 510-524.
 15. Humbert F.,L. Sonnette,M.O. de Kock, P. Robion, **C.S. Horng**, A. Cousture and H. Wabo (2017), Palaeomagnetism of the early Palaeoproterozoic, volcanic Hekpoort Formation (Transvaal Supergroup) of the Kaapvaal craton, South Africa,*Geophysical Journal International*, 209, 842-865.
 16. Sonnette, L., Lee J.C., **Horng C.S.**(2017), The arcuate fold-and-thrust belt of northern Taiwan: results of a two-stage rotation revealed from paleomagnetic study. *Journal of Asian Earth Sciences*, 147, 284-309.
 17. Yu, S.W., Louis L. Tsai, Peter Talling, Andrew T. Lin, H.S. Mii S.H. Chung, **C.S. Horng**, (2017), Sea level and climatic controls on turbidite occurrence for the past 26 kyr on the flank of the Gaoping Canyon off SW Taiwan, *Marine Geology*, 392, 140-150.
 18. Kan-Hsi Hsiung, Toshiya Kanamatsu, Ken Ikehara, Kazuya Shiraishi, **Chorn-Shern Horng**, Kazuko Usami, (2017), “Morpho-sedimentary features and sediment dispersal systems of the southwest end of the Ryukyu Trench: a source-to-sink approach”, *Geo-Mar Lett*, 37(6), 561-577
 19. 陳松春、許樹坤、蔡慶輝、王詠綸、洪崇勝、郭富雯，2016，〈泥貫入體構造對恆春西台地及附近海域之地體構造演化影響〉，《鑛冶》，第 60 卷第 3 期，頁 7-22。
 20. 洪崇勝、陳國航、林俊宏、曾鐘億、王詠綸、費立沅、鐘三雄、陳松春、陳柏淳、魏正岳、王錦昌，2016，《經濟部中央地質調查所特刊》，共第 30 號，第 89-122 頁頁，台北市：經濟部中央地質調查所。

21. **Horng, C.S.** (2014) Age of the Tananwan Formation in northern Taiwan: A reexamination of its magnetostratigraphy and calcareous nannofossil biostratigraphy. *TAO*, 25(2), 137-147.
22. Lin C.C., A.T. Lin, C.S. Liu, **C.S. Horng**, G.Y. Chen, Y. Wang (2014) Canyon-infilling and gas hydrate occurrences in the frontal fold of the offshore accretionary wedge off southern Taiwan. *Mar. Geophys. Res.*, 35(1), 21-35.
23. Chung, P.C., A.W. Dale, K. Wallmann, M. Haeckel, T.F. Yang, N.C. Chen, H.C. Chen, H.W. Chen, S. Lin, C.H. Sun, C.F. You, **C.S. Horng**, Y. Wang, S.H. Chung (2013) Relating sulfate and methane dynamics to geology: the accretionary prism offshore SW Taiwan, *Geochem. Geophys. Geosyst.*, 14, 2523-2545, doi: 10.1002/ggge.20168.
24. **Horng, C.S.** (2014) Age of the Tananwan Formation in Northern Taiwan: A Reexamination of the Magnetostratigraphy and Calcareous Nannofossil Biostratigraphy. *TAO*, 25(2), 137-147, doi: 10.3319/TAO.2013.11.05.01(TT)
25. **Horng, C.S., C.A. Huh, K.H. Chen, C.H. Lin**, K.S. Shea and K.H. Hsiung (2012) Pyrrhotite as a tracer for denudation of the Taiwan orogen. *Geochem. Geophys. Geosyst.*, 13, Q08Z47, doi:10.1029/2012GC004195.
26. Chang, L., M. Winklhofer, A.P. Roberts, M.J. Dekkers, **C.S. Horng**, L. Hu, Q. Chen (2012) Ferromagnetic resonance characterization of greigite (Fe₃S₄), monoclinic pyrrhotite (Fe₇S₈), and non-interacting titanomagnetite (Fe_{3-x}Ti_xO₄). *Geochem. Geophys. Geosyst.*, 13(5), Q05Z41, doi:10.1029/2012GC004063.
27. **洪崇勝、陳國航、林俊宏**(2011) 臺灣北部橫貫公路低度變質岩之岩石磁學兼論雪山山脈與中央山脈之地層對比，經濟部中央地質調查所特刊第 25 號，第 167-179 頁。IESAS1623
28. 謝凱旋、**洪崇勝**、陳勉銘、游能悌 (2011)臺灣中部地區佳陽層、眉溪砂岩中段與廬山層底部之化石研究：雪山山脈南段東翼地層的年代制約，經濟部中央地質調查所特刊第 25 號，第 133-166 頁。IESAS1622
29. **Horng, C.S.**, and C.A. Huh (2011) Magnetic properties as tracers for source-to-sink dispersal of sediments: A case study in the Taiwan Strait. *Earth Planet. Sci. Lett.*, 309, 141-152, doi:10.1016/j.epsl.2011.07.002.
30. Roberts, A.P., L. Chang, C.J. Rowan, **C.S. Horng**, F. Florindo (2011) Magnetic properties of sedimentary greigite (Fe₃S₄): An update. *Rev. Geophysics*, 49, RG1002, doi:10.1029/2010RG000336.
31. Zheng, Z., X. Zhao, **C.S. Horng** (2010) Reply to comment by John Shaw on “A new high-precision furnace for paleomagnetic and paleointensity studies:

- Minimizing magnetic noise generated by heater currents inside traditional thermal demagnetizers". *Geochem. Geophys. Geosyst.*, 11(11), Q11Y12, doi:10.1029/2010GC003295.
32. Egli, R., A.P. Chen, M. Winklhofer, K. P. Kodama, C.S. Horng (2010) Detection of noninteracting single domain particles using first-order reversal curve diagrams. *Geochem. Geophys. Geosyst.*, 11(1), Q01Z11, doi:10.1029/2009GC002916.
33. Zheng, Z., X. Zhao, **C.S. Horng** (2010) A new high-precision furnace for paleomagnetic and paleointensity studies: Minimizing magnetic noise generated by heater currents inside traditional thermal demagnetizers. *Geochem. Geophys. Geosyst.*, 11(4), Q04Y08, doi:10.1029/2010GC003100.
34. Saganuma, Y., Y. Yokoyama, T. Yamazaki, K. Kawamura, **C.S. Horng**, H. Matsuzaki (2010) ^{10}Be evidence for delayed acquisition of remanent magnetization in marine sediments: Implication for a new age for the Matuyama–Brunhes boundary. *Earth and Planetary Science Letters*, 296, 443-450.
35. Chang L., A. P. Roberts, C. J. Rowan, Y. Tang, P. Pruner, Q.-W. Chen, and **C.-S. Horng** (2009) Low-temperature magnetic properties of greigite (Fe_3S_4), *Geochem., Geophys., Geosyst.*, 10, Q01Y04, doi:10.1029/2008GC002276.
36. **Horng C. S.**, Chih-An Huh, Kuo-Hang Chen, Pin-Ru Huang, Kan-Hsi Hsiung, and Hui-Ling Lin (2009) Air pollution history elucidated from anthropogenic spherules and their magnetic signatures in marine sediments offshore of southwestern Taiwan. *J. Marine Systems*, 76, 468-478
37. **Horng, C.-S.** and K.-S. Shea (2007) The Quaternary magnetobiostratigraphy of Taiwan and Penglai orogenic events. *Spec. Publ. Cent. Sur.*, 18, 51-83 (in Chinese with English abstract). 臺灣第四紀磁生物地層及蓬萊造山運動事件，經濟部中央地質調查所特刊第 18 號：臺灣第四紀研究—回顧與前瞻，第 51-83 頁。 [[pdf 2007b](#)]
38. Liu, Q., A. P. Roberts, J. Torrent, **C.-S. Horng**, and J. C. Larrasoña (2007) What do the HIRM and S-ratio parameters really measure in environmental magnetism? *Geochem., Geophys., Geosyst.*, 8, Q09011, doi:10.1029/2007GC001717.
39. Roberts, A.P., Q. S. Liu, C.J. Rowan, L. Chang, C. Carvallo, J. Torrent, and **C.-S. Horng** (2006) Characterization of hematite ($\alpha\text{-Fe}_2\text{O}_3$), goethite ($\alpha\text{-FeOOH}$), greigite (Fe_3S_4), and pyrrhotite (Fe_7S_8) using first-order reversal curve diagrams, *J. Geophys. Res.*, 111, B12S35, doi:10.1029/2006JB004715.

40. **Horng, C.-S.**, and K.-H. Chen (2006) Complicated magnetic mineral assemblages in marine sediments offshore of southwestern Taiwan: possible influence of methane flux on the early diagenetic process, *Terr. Atmos. Ocean. Sc.*, 17 (4) 1009-1026. [[pdf 2006b](#)]
41. **Horng, C.-S.** and A. P. Roberts (2006) Authigenic or detrital origin of pyrrhotite in sediments?: Resolving a paleomagnetic conundrum, *Earth Planet. Sci. Lett.*, 241, 750-762.
42. Gong, S.-Y., H.-S. Mii, K.-Y. Wei, **C.-S. Horng**, F.-W. Huang, W.-R. Chi, T.-F. Yui, P.-K. Torng, S.-T. Huang, S.-W. Wang, J.-C. Wu and K.-M. Yang (2005) Dry climate near the western Pacific warm pool: Pleistocene caliche surfaces of the Nansha Islands, South China Sea, *Palaeogeogr., Palaeoclimatol., Palaeoecol.* 226, 205-213.
43. Kao, S. J., **C. S. Horng**, S. C. Hsu, K. Y. Wei, J. Chen and Y. S. Lin (2005) Enhanced deepwater circulation and shift of sedimentary organic matter oxidation pathway in the Okinawa Trough since the Holocene, *Geophys. Res. Lett.*, 32, L25609, doi:10.1029/2005GL023139.
44. Roberts, A. P., W.-T. Jiang, F. Florindo, **C.-S. Horng** and C. Laj (2005) Assessing the timing of greigite formation and the reliability of the Upper Olduvai polarity transition record from the Crostolo River, Italy, *Geophys. Res. Lett.*, 32, doi:10.1029/2004GL022137.
45. Kao, S.-J., **C.-S. Horng**, A. P. Roberts, and K.-K. Liu (2004) Carbon-sulfur-iron relationships in sedimentary rocks from southwestern Taiwan: Influence of geochemical environment on greigite and pyrrhotite formation, *Chem. Geol.*, 203, 153-168.
46. Shau, Y.-H, M. Torii, **C.-S. Horng**, and W.-T. Liang (2004) Magnetic properties of mid-ocean ridge basalts from Ocean Drilling Program Leg 187, in "Proceedings of the Ocean Drilling Program, Scientific Results volume 187" (eds., Pedersen et al.), 1-25.
47. Kao, S.-J., S.-C. Hsu, **C.-S. Horng**, and K.-K. Liu (2004) Carbon-sulfur-iron relationships in the rapidly accumulating marine sediments off southwestern Taiwan. In "Geochemical investigations in earth and space science" (eds., Hill et al.), 441-457.
48. **Horng, C.-S.**, A. P. Roberts, and W.-T. Liang (2003), A 2.14-Myr astronomically tuned record of relative geomagnetic paleointensity from the western Philippine Sea, *J. Geophys. Res.*, 108, doi:10.1029/2001JB001698.

49. Roberts, A. P., M. Winklhofer, W.-T. Liang, and **C.-S. Horng** (2003) Testing the hypothesis of orbital (eccentricity) influence on Earth's magnetic field, *Earth Planet. Sci. Lett.*, 216, 187-192.
50. **Horng, C.-S.**, M.-Y. Lee, H. Palike, K.-Y. Wei and W.-T. Liang, Y. Iizuka, M. Torii (2002) Astronomically calibrated ages for geomagnetic reversals within the Matuyama chron. *Earth Planets Space*, 54, 679-690.
51. Shieh, Y.-T., C.-F. You, K.-S. Shea, and **C.-S. Horng** (2002) Identification of diagenetic artifacts in foraminiferal shells using carbon and oxygen isotopes. *J. Asian Earth Sci.*, 21, 1-5.
52. Jiang, W.-T., **C.-S. Horng**, A. P. Roberts and D. R. Peacor (2001) Contradictory magnetic polarities in sediments and variable timing of neof ormation of authigenic greigite. *Earth Planet. Sci. Lett.*, 193, 1-12.
53. Chen, W.-S., K. D. Ridgway, **C.-S. Horng**, Y.-G. Chen, K.-S. Shea, and M.-G. Yeh (2001) Stratigraphic architecture, magnetostratigraphy, and incised-valley systems of the Pliocene-Pleistocene collisional marine foreland basin of Taiwan. *Geol. Soc. Am. Bull.*, 113, 1249-1271.
54. Shau, Y.-H, M. Torii, **C.-S. Horng** and D. R. Peacor (2000) Subsolidus evolution and alteration of titanomagnetite in ocean ridge basalts from Deep Sea Drilling/Ocean Drilling Program Hole 504B, Leg 83: Implications for the timing of magnetization. *J. Geophys. Res.*, 105, 23635-23650.
55. **Horng, C.-S.** (2000) Magnetostratigraphic record of IMAGES core MD97-2143 from the Benham Rise of the western Philippine Sea. *J. Geol. Soc. China*, 43, 409-422. [[pdf2000b](#)]
56. **Horng, C.-S.**, K.-S. Shea and J.-C. Lee (1999) Magnetobiostratigraphy of the Sanfu-chi section in the Coastal Range of eastern Taiwan: A new result. *J. Geol. Soc. China*, 42, 613-629. [[pdf1999a](#)]
57. Shea, K.-S. and **C.-S. Horng** (1999) Recognition of the Pliocene-Pleistocene boundary based on Pulleniatina coiling change: A case study of the Erhjen-chi section, southwestern Taiwan. *Quat. Sci.*, 6, 549-555.
58. **Horng, C.-S.**, M. Torii, K.-S. Shea and S.-J. Kao (1998) Inconsistent magnetic polarities between greigite- and pyrrhotite/magnetite-bearing marine sediments from the Tsailiao-chi section, southwestern Taiwan. *Earth Planet. Sci. Lett.*, 164, 467-481. [[pdf1998](#)]
59. **Horng, C.-S.** and K.-S. Shea (1997) Magnetobiostratigraphy of the Mawu-chi section, southern Coastal Range, eastern Taiwan, *J. Geol. Soc. China*, 40, 339-362.

60. Torii, M., K. Fukuma, **C.-S. Horng**, and T.-Q. Lee (1996) Magnetic discrimination of pyrrhotite- and greigite-bearing sediment samples, *Geophys. Res. Lett.*, 23, 1813-1816.
61. **Horng, C.-S.** and K.-S. Shea (1996) Dating of the Plio-Pleistocene rapidly deposited sequence based on integrated magneto-biostratigraphy: A case study of the Madagida-chi section, Coastal Range, eastern Taiwan, *J. Geol. Soc. China*, 39, 31-58. [[pdf1996](#)]
62. **Horng, C.-S.** and K.-S. Shea (1994) Study of nannofossil biostratigraphy in the eastern part of the Erhjen-chi section, southwestern Taiwan, *Spec. Publ. Cent. Geol. Surv.*, 8, 181-204. [[pdf1994](#)]
63. Lee, T.-Q. and **C.-S. Horng** (1993) Magnetostratigraphy of the upper part of Plio-Pleistocene Madagita-chi section, Coastal Range, eastern Taiwan, *J. Geol. Soc. China*, 36, 245-258.
64. Lee, T.-Q. and **C.-S. Horng** (1993) Magnetic fabric analysis of late Neogene Hokouchi sedimentary sequence, southwestern Taiwan and its tectonic implications, *J. Geol. Soc. China*, 36, 1-14.
65. **Horng, C.-S.**, C. Laj, T.-Q. Lee, and J.-C. Chen (1992) Magnetic characteristics of sedimentary rocks from the Tsengwen-chi and Erhjen-chi sections in southwestern Taiwan, *Terr. Atmos. Ocean. Sc.*, 3, 519-532. [[pdf1992a](#)]
66. **Horng, C.-S.**, J.-C. Chen, and T.-Q. Lee (1992) Variation in magnetic minerals from two Plio-Pleistocene marine-deposited sections, southwestern Taiwan, *J. Geol. Soc. China*, 35, 323-335. [[pdf1992b](#)]
67. Lee, T.-Q., **C.-S. Horng**, and Y.-T. Lue (1992) Magnetostratigraphic study in Taiwan (in Chinese), *Spec. Publ. Cent. Geol. Surv.*, 6, 207-222.
68. Kao, S.-J., **C.-S. Horng**, and K.-K. Liu (1991) Relations between organic carbon contents and magnetic mineral assemblages in the Tsengwen-chi section (in Chinese), *Ti-Chih*, 11, 121-132.
69. Lue, Y.-T., **C.-S. Horng**, and T.-Q. Lee (1991) Paleomagnetism of the Kueishantao volcanic rocks, eastern Taiwan, *Acta Geol. Taiwanica*, 29: 77-85.
70. Lue, Y.-T., T.-Q. Lee, **C.-S. Horng**, and Y. Wang (1991) Magnetic fabric in non-metamorphosed terrain of the northwestern Foothill-Hsuehshan Belts of Taiwan, *Proc. Geol. Soc. China*, 34, 131-146.
71. Lee, T.-Q., **C.-S. Horng**, and C.-H. Kuo (1990) Magnetic fabric analysis of the Plio-Pleistocene series along the Tsengwenchi section, southern Taiwan and its tectonic implications, *Proc. Geol. Soc. China*, 33, 373-389.

72. Lee T.-Q., C. Kissel, C. Laj, **C.-S. Horng**, and Y.-T. Lue (1990) Magnetic fabric analysis of the Plio-Pleistocene sedimentary formations of the Coastal Range of Taiwan, *Earth Plan. Sci. Lett.*, 98: 23-32.
73. Lee, T.-Q., T.-R., Chen, Y.-T., Lue, **C.-S. Horng**, and W.-R. Chi (1988) Magnetic fabric and paleomagnetism of the sedimentary rocks along the Fuli-Tungsho transect, Coastal Range, eastern Taiwan, *Proc. Geol. Soc. China*, 31, 207-218.
74. Lee, T.-Q., C. Kissel, **C.-S. Horng**, Y.-T. Lue, and C. Laj (1986) Paleomagnetic study of the sedimentary rocks along the Hsiukuluan river, eastern Taiwan, *Bull. Inst. Earth Sci. Academia Sinica*, 6, 169-184.