

Weidong Sun is a Professor and Director of Center of Deep Sea Research at Institute of Oceanology, the Chinese Academy of Sciences. He works mainly on trace element and isotope geochemistry, with research interests on the Subduction Factory, namely the chemical processes during plate subduction; Pacific plate reconstruction, mechanisms of crust formation and mineralization; the behavior of chalcophile elements and mineralization; origin of mantle plume. He has published more than 290 peer reviewed papers in prestigious journals, including Nature, Geochimica et Cosmochimica Acta, Chemical Geology, Earth Planetary Science Letters, Geology, Scientific Reports, Economic Geology etc. with a total citation of more than 6000 times and h-index of 42. Weidong served in the Goldschmidt Award Committee for the Geochemical Society (2013-2015), Science Evaluation Panel of the International Ocean Drilling Project (2013-2016), Regional vice-president-Asian (2010-2013) and Fellow of the Society of Economic Geologists, board member of Society of Mineralogy Petrology and Geochemistry of China. He currently serves as the Editor of Solid Earth Sciences and Associate Editor of Geochimica et Cosmochimica Acta.



CURRICULUM VITAE

Professor Weidong SUN

Current Position and Contact Details

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Educational Qualifications:

1999-03 Ph.D. Australian National University, Canberra, Australia
1991-94 M.Sc. University of Science and Technology of China. Hefei, P.R. China
1986-91 B.Sc. University of Science and Technology of China. Hefei, P.R. China

Career Experience

2016- Professor, Center of Deep Sea Research, Qingdao Institute of Oceanology, CAS, Qingdao, China
2010-16 Professor, Director, CAS Key Lab of Mineralogy and Metallogeny, Guangzhou Institute of Geochemistry, CAS, Guangzhou, China
2010-11 Professor, Vice Director, State Key Lab of Isotope Geochemistry, Guangzhou Institute of Geochemistry, CAS, Guangzhou, China
2006- Director, National Large Instrument Center-Guangzhou Mass Spectrometer Center.
2004-10 Professor, Vice Director, CAS Key Lab of Isotope Geochemistry and Geochronology, Guangzhou Institute of Geochemistry, CAS, Guangzhou, China
2003-04 A.V. Humboldt Postdoc, Max-Planck Institute of Chemistry, Mainz, Germany
1997-99 Staff member, University of Science and Technology of China

Academic Appointments:

2013-2016 Member, Scientific Evaluation Panel, IODP
2013-2015 Member, Goldschmidt Award Committee
2013- Associate Editor, *Geochimica et Cosmochimica Acta*

2011-2013	Member, Science and Technology Panel, IODP
2010-2013	Regional vice President-Asian. Society of Economic Geologists
2009-	Society of Economic Geologists, Fellow
2009- 2017	Director, Isotope Geochemistry, Society of Mineralogy, Petrology and Geochemistry
2014-	Editor-in-Chief, Solid Earth Sciences
2012-	Associate Editor, Acta Geochimica
2009-	Associate Editor, Geochimica (Chinese version)

Awards, Grants, Honours and Society Memberships

Awards:

2016	Leading Talent, Ministry of Human Resources, China
2013	Nanyue 100 Outstanding Scientists
2010	National Natural Science Award, second class (Personal Ranking 4th)
2008	Science and Technology Award, Anhui Province, first class (PR 3rd)
2006	“Hou Defeng” Young Scientist award
2005	Natural Science Foundation of China “Outstanding Young Scientist”
2005	Chinese Academy of Sciences “100 Talented Scientist” Professorship
2003-04	“Alexander von Humboldt research fellowship”

Grants in the past three years (as P.I.):

- MOST of China DREAM Project: Major Yanshanian geologic events in eastern China, Deep processes and resources (77.63 M RMB)
- NSFC Major Project: The chemical process of plate subduction and mineralization (10 M RMB)
- NSFC innovative team project: The geochemical behaviors of elements during magmatism and ore-forming process (6 M+6 M RMB).
- NSFC key project: Subduciton related magmatisms along the South China Sea (3.6 M RBM).
- 973 sub-project: The behaviors of elements during the reworking of continental crust and hydrothermal mineralization.

Professional Organizations:

Geochemical Society
American Geophysical Union
Society of Economic Geologists
Society of Mineralogy Petrology and Geochemistry
Geological Society of China

PhD and Postdoc:

Supervised >50 PhD + Postdocs.

Favorite Publications

1. **Sun, W. D.**, Williams, I.S., and Li, SG. Carboniferous and Triassic eclogites in the western Dabie Mountains, east-central China: evidence for protracted convergence of the North and South China Blocks. **Journal of Metamorphic Geology**, 20 (2002), 873-886.
2. **Sun, W.D.**, et al., Release of gold-bearing fluids in convergent margin magmas prompted by magnetite crystallization. **Nature**, 2004. 431(7011): p. 975-978.
3. **Sun, W.D.**, et al., Enhanced mantle-to-crust rhenium transfer in undegassed arc magmas. **Nature**, 2003. 422(6929): p. 294-297.
4. **Sun, W. D.**, Binns, R. A., Fan, A. C., Kamenetsky, V. S., Wysoczanski, R., Wei, G. J., Hu, Y. H., Arculus, R. J. Chlorine in submarine volcanic glasses from the eastern Manus basin. **Geochimica Et Cosmochimica Acta**, 71(6) (2007), 1542-1552.
5. **Sun, W. D.**, Ding, X., Hu, Y. H., Li, X. H. The golden transformation of the Cretaceous plate subduction in the west Pacific. **Earth and Planetary Science Letters**, 262(3-4) (2007): 533-542. (ESI Highly Cited)
6. **Sun, W. D.**, Hu, Y. H., Kamenetsky, V. S., Eggins, S. M., Chen, M., and Arculus, R. J. Constancy of Nb/U in the mantle revisited. **Geochimica Et Cosmochimica Acta**, 72 (2008), 3542-3549.
7. **Sun, W. D.**, Ling, M. X., Yang, X. Y., Fan, W. M., Ding, X., Liang, H. Y. Ridge subduction and porphyry copper-gold mineralization: An overview. **Science in China (Earth Science)**, 53 (2010), 475-484. (ESI Highly Cited)
8. **Sun, W.D.**, Liang, H.Y., Ling, M.X., Zhan, M.Z., Ding, X., Zhang, H., Yang, X.Y., Li, Y.L., Ireland, T.R., Wei, Q.R., Fan, W.M., 2013b. The link between reduced porphyry copper deposits and oxidized magmas. **Geochimica Et Cosmochimica Acta** 103, 263-275. (ESI Highly Cited)
9. **Sun, W.D.** et al., 2015b. Porphyry deposits and oxidized magmas. **Ore Geology Reviews**, 65: 97-131. (ESI Highly Cited)

10. **Sun, W.-d.**, Hawkesworth, C.J., Yao, C., Zhang, C.-c., Huang, R.-f., Liu, X., Sun, X.-l., Ireland, T., Song, M.-s., Ling, M.-x., Ding, X., Zhang, Z.-f., Fan, W.-m., Wu, Z.-q., 2017a. Carbonated mantle domains at the base of the Earth's transition zone. **Chemical Geology**.

Peer Reviewed Papers in English

2017

1. Deng, J.H., Yang, X.Y., Qi, H.S., Zhang, Z.F., Mastoi, A.S., **Sun, W.D.**, 2017. Early Cretaceous high-Mg adakites associated with Cu-Au mineralization in the Cebu Island, Central Philippines: Implication for partial melting of the paleo-Pacific Plate. *Ore Geol Rev* 88, 251-269.
2. Hosseini, M.R., Hassanzadeh, J., Alirezaei, S., **Sun, W.D.**, Li, C.Y., 2017. Age revision of the Neotethyan arc migration into the southeast Urumieh-Dokhtar belt of Iran: Geochemistry and U-Pb zircon geochronology. *Lithos* 284, 296-309.
3. Li, C.Y., Hao, X.L., Liu, J.Q., Ling, M.X., Ding, X., Zhang, H., **Sun, W.D.**, 2017a. The formation of Luoboling porphyry Cu-Mo deposit: Constraints from zircon and apatite. *Lithos* 272, 291-300.
4. Li, S.G., Yang, W., Ke, S., Meng, X., Tian, H., Xu, L.J., He, Y.S., Huang, J., Wang, X.C., Xia, Q., **Sun, W.D.**, Yang, X.Y., Ren, Z.Y., Wei, H.Q., Liu, Y.S., Meng, F.C., Yan, J., 2017b. Deep carbon cycles constrained by a large-scale mantle Mg isotope anomaly in eastern China. *Natl Sci Rev* 4, 111-120.
5. Mi, M., Li, C.Y., **Sun, W.D.**, Li, D.F., Zhu, C.H., 2017. Yaochong Mo deposit, a low-F porphyry Mo deposit from the Qinling-Dabie orogenic belt. *Ore Geol Rev* 88, 188-200.
6. **Sun, W.-d.**, Hawkesworth, C.J., Yao, C., Zhang, C.-c., Huang, R.-f., Liu, X., Sun, X.-l., Ireland, T., Song, M.-s., Ling, M.-x., Ding, X., Zhang, Z.-f., Fan, W.-m., Wu, Z.-q., 2017a. Carbonated mantle domains at the base of the Earth's transition zone. *Chemical Geology*.
7. **Sun, W.-d.**, Zhang, C.-c., 2017. Carbon recycling through alkali basalts. *Solid Earth Sciences* 2, 41-42.
8. **Sun, W.**, Wang, J., Zhang, L., Zhang, C., Li, H., Ling, M., Ding, X., Li, C., Liang, H., 2017b. The formation of porphyry copper deposits. *Acta Geochimica* 36, 9-15.
9. Wang, N., Shen, C.D., **Sun, W.D.**, Yi, W.X., Ding, P., Ding, X.F., Fu, D.P., Liu, K.X., 2017. Seasonal C-14 and Sr/Ca Records of a Modern Coral around Daya Bay Nuclear Power Plants. *Radiocarbon* 59, 1035-1046.
10. Xie, J.C., Fang, D., Xia, D.M., Li, Q.Z., **Sun, W.D.**, 2017. Petrogenesis and tectonic implications of late Mesozoic granitoids in southern Anhui Province, southeastern China. *International Geology Review* 59, 1804-1826.
11. Xu, D.R., Chi, G.X., Zhang, Y.H., Zhang, Z.C., **Sun, W.D.**, 2017. Yanshanian (Late

Mesozoic) ore deposits in China - An introduction to the Special Issue. *Ore Geol Rev* 88, 481-490.

12. Yang, X.Y., Lai, X.Y., Pirajno, F., Liu, Y.L., Ling, M.X., **Sun, W.D.**, 2017. Genesis of the Bayan Obo Fe-REE-Nb formation in Inner Mongolia, North China Craton: A perspective review. *Precambrian Res* 288, 39-71.
13. Zhang, C.C., **Sun, W.D.**, Wang, J.T., Zhang, L.P., Sun, S.J., Wu, K., 2017a. Oxygen fugacity and porphyry mineralization: A zircon perspective of Dexing porphyry Cu deposit, China. *Geochimica Et Cosmochimica Acta* 206, 343-363.
14. Zhang, L., Hu, Y., Liang, J., Ireland, T., Chen, Y., Zhang, R., Sun, S., **Sun, W.**, 2017b. Adakitic rocks associated with the Shilu copper–molybdenum deposit in the Yangchun Basin, South China, and their tectonic implications. *Acta Geochimica*, 1-19.
15. Zhang, R.Q., Lu, J.J., Lehmann, B., Li, C.Y., Li, G.L., Zhang, L.P., Guo, J., **Sun, W.D.**, 2017c. Combined zircon and cassiterite U-Pb dating of the Piaotang granite-related tungsten-tin deposit, southern Jiangxi tungsten district, China. *Ore Geol Rev* 82, 268-284.

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16. **Sun, W.D.**, Wang, J.-t., Zhang, L.-p., Zhang, C.-c., Li, H., Ling, M.-x., Ding, X., Li, C.-y., Liang, H.-y., 2016a. The formation of porphyry copper deposits. *Acta Geochimica*, DOI 10.1007/s11631-016-0132-4.
17. **Sun, W.D.**, Li, C.Y., Hao, X.L., Ling, M.X., Ireland, T., Ding, X., Fan, W.M., 2016b. Oceanic Anoxic Events, Subduction Style and Molybdenum Mineralization. *Solid Earth Sciences* 1, 64-73 10.1016/j.sesci.2015.1011.1001.
18. **Sun, W.D.**, Zhang, L.P., Guo, J., Li, C.Y., Jiang, Y.H., Zartman, R.E., Zhang, Z.F., 2016c. Origin of the mysterious Yin-Shang bronzes in China indicated by lead isotopes. *Sci Rep-Uk* 6. Doi 10.1038/Srep23304.
19. Huang, R.F., **Sun, W.D.**, Liu, J.Z., Ding, X., Peng, S.B., Zhan, W.H., 2016. The H-2/CH₄ ratio during serpentinization cannot reliably identify biological signatures. *Sci Rep-Uk* 6. Doi 10.1038/Srep33821.
20. Li, C.Y., Zhang, R.Q., Ding, X., Ling, M.X., Fan, W.M., **Sun, W.D.**, 2016. Dating cassiterite using laser ablation ICP-MS. *Ore Geology Reviews* 72, 313-322.
21. Deng, J.H., Yang, X.Y., Li, S., Gu, H.L., Mastoi, A.S., **Sun, W.D.**, 2016. Partial melting of subducted paleo-Pacific plate during the early Cretaceous: Constraint from adakitic rocks in the Shaxi porphyry Cu-Au deposit, Lower Yangtze River Belt. *Lithos* 262, 651-667.
22. Xie, J.C., Xia, D.M., Fang, D., Yan, J., Yang, X.Y., **Sun, W.D.**, Li, Q.Z., 2016. Geochemistry of Late Mesozoic granodiorites in southern Anhui Province: Constraints for rock- and ore-forming. *Acta Petrologica Sinica* 32, 439-455.
23. Yao, J.M., Mathur, R., **Sun, W.D.**, Song, W.L., Chen, H.Y., Mutti, L., Xiang, X.K., Luo, X.H., 2016. Fractionation of Cu and Mo isotopes caused by vapor-liquid partitioning,

evidence from the Dahutang W-Cu-Mo ore field. **Geochem. Geophys. Geosyst.** 17, 1725-1739.

24. Zhu, H.L., Zhang, Z.F., Wang, G.Q., Liu, Y.F., Liu, F., Li, X., **Sun, W.D.**, 2016. Calcium Isotopic Fractionation during Ion-Exchange Column Chemistry and Thermal Ionisation Mass Spectrometry (TIMS) Determination. **Geostand. Geoanal. Res.** 40, 185-194.

2015

25. **Sun, W.D.**, Huang, R.F., Li, H., Hu, Y.B., Zhang, C.C., Sun, S.J., Zhang, L.P., Ding, X., Li, C.Y., Zartman, R.E., Ling, M.X., 2015e. Porphyry deposits and oxidized magmas. **Ore Geology Reviews** 65, 97-131.
26. **Sun, W.D.**, 2015. Decratonic gold deposits: a new concept and new opportunities. **National Science Review** 2, 248-249.
27. **Sun, W.D.**, Ding, X., Ling, M.X., Zartman, R.E., Yang, X.Y., 2015d. Subduction and ore deposits. **International Geology Review** 57. 10.1080/00206814. 2015.1029543
28. **Sun, W.D.**, 2015. The Taylor Moon. **Acta Geochimica**. DOI 10.1007/s11631-015-0083-1.
29. **Sun, W.D.**, Li, C.Y., Ling, M.X., Ding, X., Yang, X.Y., Liang, H.Y., Zhang, H., Fan, W.M., 2015f. The geochemical behavior of molybdenum and mineralization. **Acta Petrologica Sinica** 31, 1807-1817.
30. Hu, Y.B., Liu, J.Q., Ling, M.X., Ding, W., Liu, Y., Zartman, R.E., Ma, X.F., Liu, D.Y., Zhang, C.C., Sun, S.J., Zhang, L.P., Wu, K., **Sun, W.D.**, 2015b. The formation of Qulong adakites and their relationship with porphyry copper deposit: Geochemical constraints. **Lithos** 220, 60-80.
31. Huang, R.F., **Sun, W.D.**, Ding, X., Liu, J.Z., Peng, S.B., 2015. Olivine versus peridotite during serpentinization: Gas formation. **Sci China-Earth Sci** 58, 2165-2174.
32. Mi, M., Li, C.Y., **Sun, W.D.**, 2015. Qian'echong low-F porphyry Mo deposits in the Dabie Mountains, central China. **Lithos** 239, 157-169.
33. Bao, Z.W., Wang, C.Y., Zeng, L.J., **Sun, W.D.**, Yao, J.M., 2015. Slab break-off model for the Triassic syn-collisional granites in the Qinling orogenic belt, Central China: Zircon U-Pb age and Hf isotope constraints. **International Geology Review** 57, 492-507.
34. Ding, X., **Sun, W.D.**, Chen, W.F., Chen, P.R., Sun, T., Sun, S.J., Lin, C.T., Chen, F.K., 2015. Multiple Mesozoic magma processes formed the 240-185 Ma composite Weishan pluton, South China: evidence from geochronology, geochemistry, and Sr-Nd isotopes. **International Geology Review** 57, 1189-1217.
35. Duan, L.A., Gu, H.L., Yang, X.Y., Yan, Z.Z., **Sun, W.D.**, 2015. Chronology and Hf isotopic study of igneous rocks in the Liwan Cu-polymetal deposit in Guichi along the Middle-Lower Yangtze River. **Acta Petrologica Sinica** 31, 1943-1961.
36. Gong, G.L., **Sun, W.D.**, Xu, H.Y., 2015. Thermoluminescence signal in K-feldspar grains:

Revisited. **Appl Radiat Isotopes** 105, 80-87.

37. He, J.J., Ding, X., Wang, Y.R., **Sun, W.D.**, 2015a. The effects of precipitation-aging-re-dissolution and pressure on hydrolysis of fluorine-rich titanium complexes in hydrothermal fluids and its geological implications. **Acta Petrologica Sinica** 31, 1870-1878.
38. He, J.J., Ding, X., Wang, Y.R., **Sun, W.D.**, Fu, B., 2015b. The effect of temperature and concentration on hydrolysis of fluorine-rich titanium complexes in hydrothermal fluids: Constraints on titanium mobility in deep geological processes. **Acta Petrologica Sinica** 31, 802-810.
39. Hu, Y.B., Liu, J.Q., Hu, J.R., Ding, X., **Sun, W.D.**, Liu, Y., Ling, M.X., 2015a. Geochemical studies on ore-bearing rocks in Bangpu porphyry Mo (Cu) deposit, Tibet: Implications on the magma source and metallogenic mechanism. **Acta Petrologica Sinica** 31, 2038-2052.
40. Huang, R.F., **Sun, W.D.**, Ding, X., Liu, J.Q., Zhan, W.H., 2015a. Formation of hydrogen gas and alkane during peridotite serpentinization. **Acta Petrologica Sinica** 31, 1901-1907.
41. Huang, R.F., **Sun, W.D.**, Ding, X., Wang, Y.R., Zhan, W.H., 2015b. Experimental investigation of iron mobility during serpentinization. **Acta Petrologica Sinica** 31, 883-890.
42. Li, S., Yang, X.Y., **Sun, W.D.**, 2015a. The Lamandau IOCG deposit, southwestern Kalimantan Island, Indonesia: Evidence for its formation from geochronology, mineralogy, and petrogenesis of igneous host rocks. **Ore Geol Rev** 68, 43-58.
43. Li, X.H., Liu, X.M., Liu, Y.S., Su, L., **Sun, W.D.**, Huang, H.Q., Yi, K., 2015b. Accuracy of LA-ICPMS zircon U-Pb age determination: An inter-laboratory comparison. **Sci China Earth Sci** 58, 1722-1730.
44. Liu, J.F., Li, C., Li, H., **Sun, W.D.**, Wang, F.Y., 2015a. The Sihui pluton in South China Block: A potential Cu-Mo bearing pluton. **Acta Petrologica Sinica** 31, 791-801.
45. Liu, J.F., Li, C., Sun, Y., **Sun, W.D.**, 2015b. Melt percolation in the Songshugou ultramafic massif of the Qinling orogenic belt, Central China. **International Geology Review** 57, 1326-1339.
46. Liu, L., Yang, X.Y., Santosh, M., Aulbach, S., Zhou, H.Y., Geng, J.Z., **Sun, W.D.**, 2015c. Neoproterozoic intraplate crustal accretion on the northern margin of the Yangtze Block: Evidence from geochemistry, zircon SHRIMP U-Pb dating and Hf isotopes from the Fuchashan Complex. **Precambrian Research** 268, 97-114.
47. Sun, P.F., Deng, B.A., Du, G.H., Li, H., **Sun, W.D.**, Ren, J.B., Xiao, T.Q., 2015a. Nondestructive rare earth element imaging of fish teeth from deep-sea sediments. **X-Ray Spectrom** 44, 442-446.
48. Sun, S.J., **Sun, W.D.**, Zhang, L.P., Zhang, R.Q., Li, C.Y., Zhang, H., Hu, Y.B., Zhang, Z.R., 2015b. Zircon U-Pb ages and geochemical characteristics of granitoids in Nagqu area,

Tibet. **Lithos** 231, 92-102.

49. Sun, S.J., Zhang, L.P., Ding, X., **Sun, W.D.**, Zhang, Z.R., 2015c. Hf isotopes and geochemical characteristics of volcanic rocks in Nagqu area, Tibet and their petrogenesis. **Acta Petrologica Sinica** 31, 2063-2077.
50. Sun, Y.L., Ren, M.H., Xia, X.P., Li, C.Y., **Sun, W.D.**, 2015g. Determination of Os by isotope dilution-inductively coupled plasma-mass spectrometry with the combination of laser ablation to introduce chemically separated geological samples. **Spectrochim Acta B** 113, 22-29.
51. Zhan, M.Z., **Sun, W.D.**, Ling, M.X., Li, H., 2015. Huangyan ridge subduction and formation of porphyry Cu-Au deposits in Luzon. **Acta Petrologica Sinica** 31, 2101-2114.
52. Zhang, H., Chen, D.L., Zhai, M.G., Zhang, F.X., Gong, X.K., **Sun, W.D.**, 2015. Molybdenite Re-Os dating and its tectonic significance of the Guilingou porphyry molybdenum deposit, southern Qinling. **Acta Petrologica Sinica** 31, 2023-2037.
53. Zhu, H.L., Yang, X.Y., **Sun, W.D.**, 2015. The petrogenesis of granodiorite in Sanbao area, Qimen County, southern Anhui: Constraints from geochemistry, zircon U-Pb dating and Hf isotope. **Acta Petrologica Sinica** 31, 1917-1928.

2014

54. **Sun, W.D.**, Teng, F.-Z., Niu, Y.-L., Tatsumi, Y., Yang, X.-Y., Ling, M.-X., 2014a. The Subduction Factory: Geochemical perspectives. **Geochimica et Cosmochimica Acta** 143, 1-7.
55. **Sun, W.D.**, Huang, R.F., Liang, H.Y., Ling, M.X., Li, C.Y., Ding, X., Zhang, H., Yang, X.Y., Ireland, T., Fan, W.M., 2014b. Magnetite-hematite, oxygen fugacity, adakite and porphyry copper deposits: Reply to Richards. **Geochimica Et Cosmochimica Acta** 126, 646-649.
56. **Sun, W.D.**, Zhang, C.C., Liang, H.Y., Ling, M.X., Li, C.Y., Ding, X., Zhang, H., Yang, X.Y., Ireland, T., Fan, W.M., 2014c. The genetic association between magnetite-hematite and porphyry copper deposits: Reply to Pokrovski. **Geochimica Et Cosmochimica Acta** 126, 639-642.
57. Li, H., Ling, M.X., Ding, X., Zhang, H., Li, C.Y., Liu, D.Y., **Sun, W.D.**, 2014a. The geochemical characteristics of Haiyang A-type granite complex in Shandong, eastern China. **Lithos** 200, 142-156.
58. Li, S., Yang, X.Y., Huang, Y., **Sun, W.D.**, 2014b. Petrogenesis and mineralization of the Fenghuangshan skarn Cu-Au deposit, Tongling ore cluster field, Lower Yangtze metallogenic belt. **Ore Geol Rev** 58, 148-162.
59. Ling, M.X., Liu, Y., Zhang, H., **Sun, W.D.**, 2014a. Sample Preparation and X-Ray Fluorescence Analysis of Sulfide Ores. **Anal Lett** 47, 1598-1605.
60. Ling, M.X., Zhang, H., Li, H., Liu, Y.L., Liu, J., Li, L.Q., Li, C.Y., Yang, X.Y., **Sun, W.D.**, 2014b. The Permian-Triassic granitoids in Bayan Obo, North China Craton: A

geochemical and geochronological study. *Lithos* 190, 430-439.

61. Liu, Y., Zhang, Z.F., Peng, Z.C., Ling, M.X., Shen, C.C., Liu, W.G., Sun, X.C., Shen, C.D., Liu, K.X., **Sun, W.D.**, 2014c. Mysterious abrupt carbon-14 increase in coral contributed by a comet. *Sci Rep-Uk* 4.
62. Zhang, H., Li, C.Y., Yang, X.Y., Sun, Y.L., Deng, J.H., Liang, H.Y., Wang, R.L., Wang, B.H., Wang, Y.X., **Sun, W.D.**, 2014. Shapinggou: the largest Climax-type porphyry Mo deposit in China. *International Geology Review* 56, 313-331.
63. Bao, Z.W., **Sun, W.D.**, Li, C.J., Zhao, Z.H., 2014. U-Pb dating of hydrothermal zircon from the Dongping gold deposit in North China: Constraints on the mineralization processes. *Ore Geol Rev* 61, 107-119.
64. Hu, Z.L., Yang, X.Y., Duan, L.V., **Sun, W.D.**, 2014. Geochronological and geochemical constraints on genesis of the adakitic rocks in Outang, South Tan-Lu Fault Belt (Northeastern Yangtze Block). *Tectonophysics* 626, 86-104.
65. Liang, J.L., **Sun, W.D.**, Zhu, S.Y., Li, H., Liu, Y.L., Zhai, W., 2014. Mineralogical study of sediment-hosted gold deposits in the Yangshan ore field, Western Qinling Orogen, Central China. *Journal of Asian Earth Sciences* 85, 40-52.
66. Liu, C.Z., Wu, F.Y., Chung, S.L., Li, Q.L., **Sun, W.D.**, Ji, W.Q., 2014a. A 'hidden' O-18-enriched reservoir in the sub-arc mantle. *Sci Rep-Uk* 4.
67. Liu, X.C., Xiong, X.L., Audetat, A., Li, Y., Song, M.S., Li, L., **Sun, W.D.**, Ding, X., 2014b. Partitioning of copper between olivine, orthopyroxene, clinopyroxene, spinel, garnet and silicate melts at upper mantle conditions. ***Geochimica Et Cosmochimica Acta*** 125, 1-22.
68. Wu, J., Wang, G.Q., Liang, H.Y., Huang, W.T., Lin, S.P., Zou, Y.Q., **Sun, W.D.**, Wang, Y.W., 2014. Identification of Caledonian volcanic rock in the Dabaoshan ore-field in northern Guangdong Province and its geological implication. *Acta Petrologica Sinica* 30, 1145-1154.
69. Yang, W.B., Niu, H.C., Shan, Q., **Sun, W.D.**, Zhang, H., Li, N.B., Jiang, Y.H., Yu, X.A., 2014a. Geochemistry of magmatic and hydrothermal zircon from the highly evolved Baerzhe alkaline granite: implications for Zr-REE-Nb mineralization. *Mineralium Deposita* 49, 451-470.
70. Yang, X.Y., Liu, L., Lee, I., Wang, B.H., Du, Z.B., Wang, Q.C., Wang, Y.X., **Sun, W.D.**, 2014b. A review on the Huoqiu banded iron formation (BIF), southeast margin of the North China Craton: Genesis of iron deposits and implications for exploration. *Ore Geol Rev* 63, 418-443.

2013

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