

研究队伍

[院士专家](#)[杰出青年](#)[万人计划](#)[优秀青年](#)[青年创新促进会](#)[广东特支计划](#)[研究员](#)[副研究员](#)[博士后流动站](#)[客座人员](#)[人才招聘](#)[人才项目](#)[硕士生导师](#)[博士生导师](#)您现在的位置: [首页](#) > [研究生教育](#) > [导师介绍](#) > [专家人才](#)

| | | | |
|-----|---------------|-------|---|
| 姓名: | 赵建新 | 性别: | 男 |
| 职务: | 实验室主任 | 职称: | 教授 |
| 学历: | 博士研究生 | 通讯地址: | 广东省广州市天河区五山科华街511号 中国科学院广州地球化学研究所 |
| 电话: | +61 410683866 | 邮政编码: | 510640 |
| 传真: | 无 | 电子邮件: | j.zhao@uq.edu.au; jxzhaouq@gmail.com |



简历:

男, 1965年出生于河南平舆, 已婚, 育有四名子女。1985年毕业于南京大学, 获岩石学专业学士学位; 1989年获澳大利亚阿德雷德大学地球化学专业硕士学位; 1992年获澳大利亚国立大学地球化学专业博士学位。现任澳大利亚昆士兰大学地学院终身教授, 放射性成因同位素实验室主任。长期从事同位素地球化学和年代学研究, 研究兴趣触及岩石地球化学、前寒武纪壳幔演化, 第四纪年代学(尤其在铀系测年方面)、古气候学、地质灾害学, 和科技考古学等领域; 承担科研项目30余项; 培养博士研究生和博士后30余人; 在国际SCI刊物上发表论文120多篇, 被引用~2000次, h-指数为26。他和他所领导的团队共有十多项研究成果被国际媒体广泛报道。1998年获澳大利亚“伊丽莎白女王特聘研究员”职称, 2001年获国家基金委“海外杰青”, 2011年获代表澳大利亚学术界最高荣誉的“尤里卡”杰出导师奖。过去10多年来赵建新教授致力于和国内同行开展跨学科领域的全方位合作, 他所负责的昆士兰大学放射性成因同位素实验室和承担的ARC等研究课题已为国内众多合作者免费提供了价值数十万澳元的分析测试数据和大约70万澳元的项目研究员工资或访问学者生活津贴, 在国内至今尚没有质谱铀系测年实验室的情况下, 为国内数个重要学科领域提供了不可多得的技术支撑。

研究领域:

元素和同位素地球化学; 地质年代学(特别是铀系定年); 前寒武纪研究; 第四纪研究; 古气候古生态学(特别是珊瑚礁和洞穴石笋研究); 科技考古学; 古地震研究; 地球化学新技术、新方法的开发和应用

获奖及荣誉:

- 2011年: 获澳大利亚博物馆“尤里卡”杰出导师奖(Eureka Prize for Outstanding Mentor of Young Researchers)(见<http://eureka.australianmuseum.net.au/ED107440-5110-11E0-B138005056B06558?DISPLAYENTRY=true>)。澳大利亚博物馆举办的一年一度的“尤里卡”大奖被誉为澳大利亚学术界的“奥斯卡”, “尤里卡”杰出导师奖类似于“奥斯卡”最佳导演奖。
- 2001年: 获昆士兰大学最佳基础研究奖
- 2000年: 获国家基金委“海外杰青”称号
- 1997年: 获澳大利亚研究委员会(ARC)特聘“伊丽莎白女王二世研究员”职务(Queen Elizabeth II Research Fellow, 任期5年)
- 1994年: 获澳大利亚研究委员会(ARC)特聘“博士后研究员”职务(Australian Post-doctoral Research Fellow, 任期3年)

代表论著:

- [1] G. Roff², T.R. Clark², C. Reymond², J.X. Zhao, Y.X. Feng, L.J. McCook, T.J. Done, J.M. Pandolfi, Palaeoecological evidence of a historical collapse of corals at Pelorus Island, inshore Great Barrier Reef, following European settlement, Proceedings of the Royal Society B - Biological Sciences 280(2013) doi: 10.1098/rspb.2012.2100 (被媒体报道).
- [2] K.F. Yu, J.X. Zhao, Q. Shi, G.J. Price, Recent massive coral mortality events in the South China Sea: was global warming and ENSO variability responsible? Chemical Geology 320-321(2012) 54-65.
- [3] E. St Pierre², J.X. Zhao*, Y.X. Feng, E. Reed, U-series dating of soda straw stalactites from excavated deposits: method development and application to Blanche Cave, Naracoorte, South Australia, Journal of Archaeological Science 39(2012) 922-930.
- [4] P. Nuriel², G. Rosenbaum, J.X. Zhao, Y.X. Feng, S.D. Golding, B. Villemant, R. Weinberger, U-Th dating of striated fault planes, Geology 40(2012) 647-650.
- [5] A.D. Nguyen², J.-x. Zhao*, Y.-x. Feng, W.-p. Hu, K.F. Yu, M. Gasparon, T.B. Pham, T.R. Clark, Impact of recent coastal development and human activities on Nha Trang Bay, Vietnam: evidence from a *Porites lutea* geochemical record, Coral Reefs (2012) DOI 10.1007/s00338-00012-00962-00334.
- [6] T.R. Clark², J.X. Zhao, Y.X. Feng, T.J. Done, S. Jupiter, J. Lough, J.M. Pandolfi, Spatial variability of initial ²³⁰Th/²³²Th in modern *Porites* from the inshore region of the Great Barrier Reef, Geochimica Et Cosmochimica Acta 78(2012) 99-118.
- [7] D.V. Burkey, M.I. Weisler, J.X. Zhao, High Precision U/Th Dating of First Polynesian Settlement, PLoS ONE 7(2012) e48769. doi:48710.41371/journal.pone.0048769 (被媒体报道).

- [8] H.Y. Zhou, J.X. Zhao, Q. Wang, Y.X. Feng, J. Tang, Speleothem-derived Asian summer monsoon variations in Central China during 54-46 ka, *Journal of Quaternary Science* 26(2011) 781-790.
- [9] I.T. Uysal, Y.X. Feng, J.X. Zhao, R. Bolhar, V. I? ik, K.A. Baublys, A. Yayo, S.D. Golding, Seismic cycles recorded in late Quaternary calcite veins: Geochronological, geochemical and microstructural evidence, *Earth and Planetary Science Letters* 303 (2011) 84-96.
- [10] G.J. Price, G.E. Webb, J.-X. Zhao, Y.-x. Feng, A.S. Murray, B.N. Cooke, S.A. Hocknull, I.H. Sobbe, Dating megafaunal extinction on the Pleistocene Darling Downs, eastern Australia: The promise and pitfalls of dating as a test of extinction hypotheses, *Quaternary Science Reviews* 30(2011) 899-914.
- [11] M. Lybolt[?], D.T. Neil, J.X. Zhao, Y.X. Feng, K.F. Yu, J.M. Pandolfi, Instability in a marginal coral reef: the shift from natural variability to a human-dominated seascape, *Frontiers in Ecology and the Environment* 9(2011) 154-160 (被媒体报道).
- [12] K.F. Yu, J.X. Zhao*, M.G. Lawrence, Y.X. Feng, Timing and duration of growth hiatuses in mid-Holocene massive *Porites* corals from the northern South China Sea, *Journal of Quaternary Science* 25(2010) 1284-1292.
- [13] K.F. Yu, J.X. Zhao*, U-series dates of Great Barrier Reef corals suggest at least +0.7 m sea level ~7000 years ago, *The Holocene* 20(2010) 1-8.
- [14] K.F. Yu, Q. Hua, J.X. Zhao*, E. Hodge, D. Fink, M. Barbetti, Holocene marine 14C reservoir age variability: evidence from ²³⁰Th-dated corals in the South China Sea, *Paleoceanography* 25(2010) PA3205, doi:3210.1029/2009PA001831.
- [15] M.L. Griffiths[?], R.N. Drysdale, M.K. Gagan, J.X. Zhao, L.K. Ayliffe, S.H. Wahyoe, S. Frisia, J.C. Hellstrom, M.J. Fischer, Y.X. Feng, B.W. Suwargadi, Evidence for Holocene changes in Australian-Indonesian monsoon rainfall from stalagmite trace element and stable isotope ratios, *Earth and Planetary Science Letters* 292(2010) 27-38.
- [16] H.Y. Zhou, Y.X. Feng, J.X. Zhao, C.C. Shen, C.F. You, Y. Lin, Deglacial variations of Sr and ⁸⁷Sr/⁸⁶Sr ratio recorded by a stalagmite from Central China and their association with past climate and environment, *Chemical Geology* 268(2009) 233-247.
- [17] J.X. Zhao, K.F. Yu, Y.X. Feng, High-precision ²³⁸U-²³⁴U-²³⁰Th disequilibrium dating of the recent past - a review, *Quaternary Geochronology* 4(2009) 423-433.
- [18] J.X. Zhao, D.T. Neil, Y.X. Feng, K.F. Yu, J.M. Pandolfi, High-precision U-series dating of very young cyclone-transported coral reef blocks from Heron and Wistari reefs, southern Great Barrier Reef, Australia, *Quaternary International* 195(2009) 122-127.
- [19] K.F. Yu, J.X. Zhao*, Q. Shi, Q.S. Meng, Reconstruction of storm/tsunami records over the last 4000 years using transported coral blocks and lagoon sediments in the southern South China Sea, *Quaternary International* 195(2009) 128-137.
- [20] K.F. Yu, J.X. Zhao*, T. Done, T.G. Chen, Microatoll record for large century-scale sea-level fluctuations in the mid-Holocene, *Quaternary Research* 71(2009) 354-360.
- [21] I.T. Uysal, Y.X. Feng, J.X. Zhao, V. Isik, P. Nuriel, S.D. Golding, Hydrothermal CO₂ degassing in seismically active zones during the late Quaternary, *Chemical Geology* 265(2009) 442-454.
- [22] E. St Pierre[?], J.X. Zhao, E. Reed, Expanding the utility of Uranium-series dating of speleothems for archaeological and palaeontological applications, *Journal of Archaeological Science* 36(2009) 1416-1423.
- [23] R.G. Roberts, K.E. Westaway, J.X. Zhao, C.S.M. Turney, M.I. Bird, W.J. Rink, L.K. Fifield, Geochronology of cave deposits at Liang Bua and of adjacent river terraces in the Wae Racang valley, western Flores, Indonesia: a synthesis of age estimates for the type locality of *Homo floresiensis*, *Journal of Human Evolution* 57(2009) 484-502.
- [24] G.J. Price, J.X. Zhao, Y.X. Feng, S.A. Hocknull, New U/Th ages for classic Pleistocene megafauna deposits of southeastern Queensland, Australia, and implications for megafauna extinction, *Journal of Asian Earth Sciences* 34(2009) 190-197.
- [25] M.L. Griffiths[?], R.N. Drysdale, M.K. Gagan, J.-x. Zhao, L.K. Ayliffe, J.C. Hellstrom, W.S. Hantoro, S. Frisia, Y.-x. Feng, I. Cartwright, E. St. Pierre, M. Fischer, B.W. Suwargadi, Increasing Australian-Indonesian monsoon rainfall linked to early Holocene sea level rise, *Nature Geoscience* 2(2009) 636-639.
- [26] H.Y. Zhou, J.-X. Zhao, Y.X. Feng, M.K. Gagan, J. Yan, Distinct climate change synchronous with Heinrich event one, recorded by stable oxygen and carbon isotopic compositions in stalagmites from China, *Quaternary Research* 69(2008) 306-315.
- [27] H.Y. Zhou, J.X. Zhao, P.Z. Zhang, C.C. Shen, B.Q. Chi, Y.X. Feng, Y. Lin, H.Z. Guang, H.C. Li, Decoupling of stalagmite-derived Asian summer monsoon records from North Atlantic temperature change during Marine Oxygen Isotope Stage 5d, *Quaternary Research* 70(2008) 315-321.
- [28] J. Yan, J.X. Zhao, Cenozoic alkali basalts from Jingpohu, NE China: The role of lithosphere-asthenosphere interaction, *Journal of Asian Earth Sciences* 33(2008) 106-121.
- [29] K.E. Westaway, J.X. Zhao, R.G. Roberts, A.R. Chivas, M.J. Morwood, T. Sutikna, Initial speleothem results from western Flores and Eastern Java, Indonesia: were climate changes from 47 to 5 ka responsible for the extinction of *Homo floresiensis*, *Journal of Quaternary Science* 22(2007) 429-438.
- [30] I.T. Uysal, J.X. Zhao, S.D. Golding, M.G. Lawrence, M. Glikson, K.D. Collerson, Sm-Nd dating and rare-earth element tracing of calcite: implications for fluid-flow events in the Bowen Basin, Australia, *Chemical Geology* 238(2007) 63-71.
- [31] I.T. Uysal, Y.X. Feng, J.X. Zhao, E. Attunel, D. Weatherley, S.D. Golding, O. Cengiz, M.G. Lawrence, V. Karabacak, K.D. Collerson, U-series dating and geochemical tracing of late Quaternary travertine in co-seismic fissures, *Earth and Planetary Science Letters* 268(2009) 233-247.

- [32] S.A. Hocknull, J.X. Zhao, Y.X. Feng, G.E. Webb, Responses of middle Pleistocene rainforest vertebrates to climate change in Australia, *Earth and Planetary Science Letters* 264(2007) 317-331 (被媒体报道).
- [33] K.-F. Yu, J.-X. Zhao*, P.-X. Wang, Q. Shi, Q.-S. Meng, K.D. Collerson, T.-S. Liu, High-precision TIMS U-series and AMS ^{14}C dating of a coral reef lagoon sediment core from southern South China Sea and its environmental significance, *Quaternary Science Reviews* 25(2006) 2420-2430.
- [34] K.-F. Yu, J.-X. Zhao*, Q. Shi, T.-G. Chen, P.-X. Wang, K.D. Collerson, T.-S. Liu, U-series dating of dead *Porites* corals in the South China Sea: evidence for episodic coral mortality over the past two centuries, *Quaternary Geochronology* 1(2006) 129-141.
- [35] B.P. Li², J.-X. Zhao, A. Greig, K.D. Collerson, Y.-X. Feng, X.-M. Sun, M.-S. Guo, Z.-X. Zhuo, Characterisation of Chinese Tang sancai from Gongxian and Yaozhou kilns using ICP-MS trace element and TIMS Sr-Nd isotopic analysis, *Journal of Archaeological Science* 33(2006) 56-62 (被媒体报道).
- [36] K.F. Yu, J.X. Zhao*, G.J. Wei, X.R. Cheng, P.X. Wang, Mid-late Holocene monsoon climate retrieved from seasonal Sr/Ca and delta O-18 records of *Porites lutea* corals at Leizhou Peninsula, northern coast of South China Sea, *Global and Planetary Change* 47(2005) 301-316.
- [37] K.F. Yu, J.X. Zhao*, G.J. Wei, X.R. Cheng, T.G. Chen, T. Felis, P.X. Wang, T.S. Liu, delta O-18, Sr/Ca and Mg/Ca records of *Porites lutea* corals from Leizhou Peninsula, northern South China Sea, and their applicability as paleoclimatic indicators, *Palaeogeography Palaeoclimatology Palaeoecology* 218(2005) 57-73.
- [38] P.W. Williams, D.N.T. King, J.X. Zhao, K.D. Collerson, Late pleistocene to holocene composite speleothem O-18 and C-13 chronologies from south island, new Zealand-did a global younger dryas really exist?, *Earth and Planetary Science Letters* 230(2005) 301-317.
- [39] B.P. Li², A. Greig, J.X. Zhao, K.D. Collerson, K.S. Quan, Y.H. Meng, Z.L. Ma, ICP-MS trace element analysis of Song dynasty porcelains from Ding, Jiexiu and Guantai kilns, north China, *Journal of Archaeological Science* 32(2005) 251-259 (被媒体报道).
- [40] K.F. Yu, J.X. Zhao*, T.S. Liu, G.H. Wei, P.X. Wang, K.D. Collerson, High-frequency winter cooling and reef coral mortality during the Holocene climatic optimum, *Earth and Planetary Science Letters* 224(2004) 143-155.
- [41] M.J. Morwood, R.P. Soejono, R.G. Roberts, T. Sutikna, C.S.M. Turney, K.E. Westaway, W.J. Rink, J.X. Zhao, G.D. van den Bergh, R.A. Due, D.R. Hobbs, M.W. Moore, M.I. Bird, L.K. Fifield, Archaeology and age of a new hominin from Flores in eastern Indonesia, *Nature* 431(2004) 1087-1091 (被媒体报道; 被《科学》杂志评选为2004年度世界第二大科学发现).
- [42] J.X. Zhao, Y.J. Wang, K.D. Collerson, M.K. Gagan, Speleothem U-series dating of semi-synchronous climate oscillations during the last deglaciation, *Earth and Planetary Science Letters* 216(2003) 155-161.
- [43] J.X. Zhao, K.F. Yu, Timing of Holocene sea-level highstands by mass spectrometric U-series ages of a coral reef from Leizhou Peninsula, South China Sea, *Chinese Science Bulletin* 47(2002) 348-352.
- [44] G.J. Shen, W. Wang, Q. Wang, J.X. Zhao, K. Collerson, C.L. Zhou, P.V. Tobias, U-Series dating of Liujiang hominid site in Guangxi, Southern China, *Journal of Human Evolution* 43(2002) 817-829.
- [45] J.X. Zhao, Q.K. Xia, K.D. Collerson, Timing and duration of the Last Interglacial inferred from high resolution U-series chronology of stalagmite growth in the Southern Hemisphere, *Earth and Planetary Science Letters* 184(2001) 635-644 (被媒体报道).
- [46] J.X. Zhao, K. Hu, K.D. Collerson, H.K. Xu, Thermal ionization mass spectrometry U-series dating of a hominid site near Nanjing, China, *Geology* 29(2001) 27-30 (被媒体报道).
- [47] Q.K. Xia², J.X. Zhao*, K.D. Collerson, Early-Mid Holocene climatic variations in Tasmania, Australia: multi-proxy records in a stalagmite from Lynds Cave, *Earth and Planetary Science Letters* 194(2001) 177-187.
- [48] J.X. Zhao, D.J. Ellis, J.A. Kilpatrick, M.T. McCulloch, Geochemical and Sr-Nd isotopic study of charnockites and related rocks in the northern Prince Charles Mountains, east Antarctica: Implications for charnockite petrogenesis and Proterozoic crustal evolution, *Precambrian Research* 81(1997) 37-66.
- [49] D.N. Young², J.X. Zhao*, D.J. Ellis, M.T. McCulloch, Geochemical and Sr-Nd isotopic mapping of source provinces for the Mawson charnockites, east Antarctica: implications for Proterozoic tectonics and Gondwana reconstruction, *Precambrian Research* 86(1997) 1-19.
- [50] X.H. Li, J.X. Zhao*, M.T. McCulloch, G.Q. Zhou, F.M. Xing, Geochemical and Sm-Nd isotopic study of Neoproterozoic ophiolites from southeastern China: Petrogenesis and tectonic implications, *Precambrian Research* 81(1997) 129-144.
- [51] J.X. Zhao, K. Shiraishi, D.J. Ellis, J.W. Sheraton, Geochemical and Isotopic Studies of Syenites from the Yamato Mountains, East Antarctica - Implications for the Origin of Syenitic Magmas, *Geochimica Et Cosmochimica Acta* 59(1995) 1363-1382.
- [52] J.X. Zhao, M.T. McCulloch, Geochemical and Nd Isotopic Systematics of Granites from the Arunta Inlier, Central Australia - Implications for Proterozoic Crustal Evolution, *Precambrian Research* 71(1995) 265-299.
- [53] J.X. Zhao, V.C. Bennett, Shrimp U-Pb Zircon Geochronology of Granites in the Arunta-Inlier, Central Australia - Implications for Proterozoic Crustal Evolution, *Precambrian Research* 71(1995) 17-43.

- [54] J.X. Zhao, M.T. McCulloch, R.J. Korsch, Characterization of a Plume-Related Similar-to-800 Ma Magmatic Event and Its Implications for Basin Formation in Central-Southern Australia, *Earth and Planetary Science Letters* 121(1994) 349-367.
- [55] J.X. Zhao, Geochemical and Sm-Nd Isotopic Study of Amphibolites in the Southern Arunta Inlier, Central Australia - Evidence for Subduction at a Proterozoic Continental-Margin, *Precambrian Research* 65(1994) 71-94.
- [56] J.X. Zhao, M.T. McCulloch, Melting of a Subduction-Modified Continental Lithospheric Mantle - Evidence from Late Proterozoic Mafic Dike Swarms in Central Australia, *Geology* 21(1993) 463-466.
- [57] J.X. Zhao, M.T. McCulloch, Sm-Nd Mineral Isochron Ages of Late Proterozoic Dyke Swarms in Australia - Evidence for 2 Distinctive Events of Mafic Magmatism and Crustal Extension, *Chemical Geology* 109(1993) 341-354.
- [58] J.X. Zhao, J.A. Cooper, Fractionation of Monazite in the Development of V-Shaped Ree Patterns in Leukogranite Systems - Evidence from a muscovite leukogranite body in Central Australia, *Lithos* 30(1993) 23-32.
- [59] J.X. Zhao, M.T. McCulloch, V.C. Bennett, Sm-Nd and U-Pb Zircon Isotopic Constraints on the Provenance of Sediments from the Amadeus Basin, Central Australia - Evidence for REE Fractionation, *Geochimica Et Cosmochimica Acta* 56(1992) 921-940.
- [60] J.X. Zhao, J.A. Cooper, The Atnarpa Igneous Complex, Southeast Arunta Inlier, Central Australia - Implications for Subduction at an Early Mid Proterozoic Continental-Margin, *Precambrian Research* 56(1992) 227-253.
- [61] Z. Fang, J.X. Zhao*, M.T. McCulloch, Geochemical and Nd Isotopic Study of Paleozoic Bimodal Volcanics in Hainan Island, South China - Implications for Rifting Tectonics and Mantle Reservoirs, *Lithos* 29(1992) 127-139.

注: ? 学生作者; *通讯作者

承担科研项目情况:

1. 澳大利亚可持续发展与环境部(DSEWPaC)大堡礁专项研究基金, \$1,150,000, 2011-2014
2. 澳大利亚基金委(ARC), 实验室共建专项基金, \$1,950,000, 2009-2010
3. ARC, Discovery Project (DP0773081), \$681,070, 2007-2011
4. 澳大利亚环境部大堡礁专项研究基金, \$185,000, 2006-2010
5. ARC, Discovery Project (DP0452443), \$140,000, 2004-2006
6. 国家基金委“海外杰青”(挂靠广州地化所), 2001-2004
7. ARC伊丽莎白女王二世特聘研究员专项基金, 1998-2002
8. ARC澳大利亚博士后研究员专项基金, 1995-1997