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研究方向：成矿流体与成矿作用；储层地质学；高温、高压实验地质学	电话：025-89680867
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个人简历 个人简历

山东省五莲县人，2002年考入南京大学地球科学系地球化学专业，随后主要简历如下：

2013年5月—今 南京大学地球科学与工程学院，副教授

2011年7月—2013年5月 南京大学地球科学与工程学院，助理研究员

2009年9月—2011年3月 U.S. Geological Survey (Reston, VA), 联培博士生，实验地球化学

2006年9月—2011年6月 南京大学地球科学与工程学院，博士，矿物学、岩石学、矿床学

2002年9月—2006年6月 南京大学地球科学系，学士，地球化学

研究方向

(1) 实验地球化学。采用可视化、在线分析方法，研究地壳—上地幔 (21 - 1000 C, 0.1 - 3 GPa) 流体—熔体的热力学性质，进而为成岩、成矿研究提供基础实验制约；采用先进的熔融毛细硅管合成包裹体技术，建立地质流体（盐度、S、B以及C-H-O-S-N体系挥发份）原位拉曼光谱定量分析方法

(2) 石油地质学。采用流体包裹体分析、埋藏史恢复和同位素定年技术，厘定油气生成、运移和聚集的时限；深埋条件下烃类热化学损耗的机理和动力学；油气储层的成因及保存条件，侧重酸性流体作用下的次生溶蚀型储层发育机制

(3) 成矿作用机制。元素在熔体和流体间的分配规律；热液流体中元素的迁移和沉淀机制，当前侧重W-Sn矿床

主要教学情况

- (1) 本科大三专业选修课《油气资源概论》
- (2) 矿床学研究生必须课程《流体作用与成矿》
- (3) 大二暑期课程《区域地质测量》(安徽巢湖野外教学)

主要奖励

- (1) 国家自然科学基金委优秀青年基金人才项目(2019)
- (2) 全国大学生地质技能竞赛优秀辅导教师(2016)
- (3) 教育部科技进步二等奖(4/6, 2015)
- (4) 南京大学中国银行青年教师教学成果二等奖(2015)

***** 主要

科研项目

- (10) 优秀青年基金项目：热液流体实验地球化学 (Grant no. 41922023), 2020 - 2022, 120万, 主持

(9) 重点基金项目: 含油气盆地溶蚀流体类型判别标志、水-岩作用机理及溶蚀型储层成因模式 (Grant no. 41830425), 2019 - 2023, 302万, 研究骨干

(8) 中石化研究院无锡石油地质研究所协作项目: 高压油气包裹体测温测压实验技术研究, 2018.09 - 2019.08, 主持

(7) 重点研发计划子课题: 高温高压条件下烃类相态转化及微观封闭机理 (Grant no. 2017YFC0603105), 2018 - 2021, 200万, 研究骨干

(6) 中央高校基本科研业务费原创与交叉研究培育基金项目: 硫酸盐热还原反应的机理、动力学特征及其成矿意义, 2017-2018, 主持

(5) 面上基金项目: 硫酸盐—水体系高温液—液不混溶作用的发生条件、机理及成矿意义 (Grant no. 41573054), 2016-2019, 主持

(4) 中石化研究院协作项目: 特高含水条件下CO₂与岩石相互作用规律研究(Grant no. GSYKY-B09-33), 2014-2015, 主持

(3) 重点基金项目: 含油气盆地深部流体与围岩介质相互作用的物理化学过程和机理(Grant no. 41230312), 2013-2017, 研究骨干

(2) 青年基金项目: 流体中镁离子性状与行为及其对白云石形成的制约(Grant no. 41203045), 2013-2015, 主持

(1) 国家科技重大专项子课题: 深层白云岩储层形成机理与发育模式(Grant no. 2011ZX05005-002-008HZ), 2011-2015, 研究骨干

论文发表

(A) SCI检索

[27] Chang C.*, Hu W., **Wang X.**, Huang K.-J., Yang A., Zhang X. (2019) Nitrogen isotope evidence for an oligotrophic shallow ocean during the Cambrian Stage 4. *Geochim. Cosmochim. Acta*, 257: 49 - 67.

[26] Yang S., Hu W.*, **Wang X.**, Jiang B., Yao S., Sun F., Huang Z., Zhu F. (2019) Duration, evolution, and implications of volcanic activity across the Ordovician-Silurian transition in the Lower Yangtze region, South China. *Earth Planet. Sci. Lett.*, 518: 13 - 25.

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[23] Chang C., Hu W., Fu Q., Cao J., **Wang X.**, Wan Y., Yao S. (2018) Characteristics and formation processes of (Ba, K, NH₄)-feldspar and cymrite from a lower Cambrian black shale sequence in Anhui Province, South China. *Mineralogical Magazine*, DOI: <https://doi.org/10.1180/minmag.2017.081.017>.

[22] **Wang X.***, Song Y., Chou I-M.*, Qiu Y. (2018) Raman spectroscopic characterization of cracking and hydrolysis of n-pentane and n-octadecane at 300 - 375 C with geological implications. *Energy Exploration & Exploitation*, doi: 10.1177/0144598717748762.

[21] Chang C., Hu W., **Wang X.**, Yu H., Yang A., Cao J., Yao S. (2017) Carbon isotope stratigraphy of the lower to middle Cambrian on the eastern Yangtze Platform, South China. *Palaeogeography, Palaeoclimatology, Palaeoecology* 479, 90-101

[20] Wu H., Hu W., Tang Y., Cao J., **Wang X.**, Wang Y., Kang X. (2017) The impact of organic fluids on the carbon isotopic compositions of carbonate-rich reservoirs: case study of the Lucaogou Formation in the Jimusaer Sag, Junggar Basin, NW China. *Marine and Petroleum Geology* 85, 136-150.

[19] Wan Y., **Wang X.***, Chou I-M., Hu W., Zhang Y., and Wang X. (2017) An Experimental Study of the Formation of Talc through CaMg(CO₃)₂-SiO₂-H₂O Interaction at 100-200°C and Vapor-Saturation Pressures. *Geofluids*, 3942826, 1-14. doi:10.1155/2017/3942826.

[18] Wan Y., **Wang X.***, Hu W., Chou I-M., Wang X., Chen Y., Xu Z. (2017) In situ optical and Raman spectroscopic observations of the effects of pressure and fluid composition on liquid-liquid phase separation in aqueous cadmium sulfate solutions (□400 □C, 50 MPa) with geological and geochemical implications. *Geochimica et Cosmochimica Acta* 211, 133-152.

[17] **Wang X.***, Wang X., Chou I-M., Hu W., Wan Y., and Li Z. (2017) Properties of lithium under hydrothermal conditions revealed by in situ Raman spectroscopic characterization of Li₂O-SO₃-H₂O(D₂O) systems at temperatures up to 420 C. *Chemical Geology* 451, 104-115.

[16] Wang X., **Wang X.***, Hu W., Wan Y., Cao J., Lv C., Wang R., Cui M. (2017) Supercritical CO₂-involved water-rock interactions at 85 C and partial pressures of 10-20 MPa: Sequestration and enhanced oil recovery. *Energy Exploration & Exploitation*, 35(2): 237-258.

[15] **Wang X.***, Wan Y., Hu W., Chou I-M., Cao J., Wang X., Wang M. and Li Z. (2016) In situ observations of liquid-liquid phase separation in aqueous ZnSO₄ solutions at temperatures up to 400° C: Implications for Zn²⁺-SO₄²⁻ association and evolution of submarine hydrothermal fluids. *Geochimica et Cosmochimica Acta* 181, 126-143.

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[12] Wu H., Hu W., Cao J., **Wang X.**, Wang X., Liao Z. (2016) A unique lacustrine mixed dolomitic-clastic sequence for tight oil reservoir within the middle Permian Lucaogou Formation of the Junggar Basin, NW China: Reservoir characteristics and origin.

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(B) 中文核心

- [21] 杨源显, **王小林***, 席斌斌, 丘旻, 高婉露, 万野, 李真. 应用拉曼光谱定量分析流体中硫酸盐质量摩尔浓度: 内标选择和流体组分对分析结果的影响. *地球化学*, 2019, 48(4): 403 - 419.
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- [19] 王晓宇, **王小林***, 万野, 胡文瑄. 一种新的热台温度校准方法: 硫酸盐—水体系液—液相分离原位观测. *地球化学*, 2017, 46(4), 319-332.
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- [15] 王利超, 胡文瑄*, **王小林**, 下扬子宜兴葛山三叠系周冲村组白云岩化过程及元素地球化学响应, *地球化学*, 2014, 43(3): 255-266
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- [13] **王小林**, 胡文瑄, 李庆, 朱井泉. (2011) 塔里木盆地蓬莱坝剖面寒武系第二统-第三统界线处碳同位素异常及其地质意义. *地质论评* 57(1), 16-23.
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- [11] **王小林**, 胡文瑄, 陈琪, 李庆, 朱井泉, 张军涛. (2010) 塔里木盆地柯坪地区上震旦统藻白云岩特征及其成因机理. *地质学报* 84, 1479-1494.
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- [9] 胡文瑄, 陈琪, **王小林**, 曹剑. (2010) 白云岩储层形成演化过程中不同流体作用的稀土元素判别模式. *石油与天然气地质* 31, 810-818.
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- [4] 张军涛, 胡文瑄, 钱一雄, **王小林**, 谢小敏. (2008) 塔里木盆地白云岩储层类型划分、测井模型及其应用. *地质学报* 82, 380-386.
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(C) 学术会议

- [16] **Wang X** (2017) In situ Raman spectroscopic observation of water-hydrocarbon-mineral interactions. Invited talk in International Forum in Organic-Inorganic Interaction During Hydrocarbon Accumulation, Beijing.
- [15] **王小林** (2017) 液-液不混溶与元素迁移、富集. 口头报告, 固体地球科学重点实验室联盟2017年度联合学术委员会, 北京.
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