

教學人員簡介

姓名：杜培鑫

職稱：助理教授

部門：月球與行星科學國家重點實驗室

辦公室：A510

電話：+853 88973079/63496879

電郵地址：pxdu@must.edu.mo



學歷

2013.9~2018.7 中國科學院大學 礦物學 博士

2009.9~2013.6 西南科技大學 地質工程 學士

教學領域

地球科學概論

結晶學與礦物學

研究領域

比較行星學

行星地質學

天體化學

礦物學

工作經歷

2018.7~2020.8 中國科學院廣州地球化學研究所 博士後

2020.9~至今 澳門科技大學 助理教授

研究項目

中國博士後科學基金壹等資助項目 PI 已結題

廣東省自然科學基金面上項目 PI 在研

國家自然科學基金青年基金項目 PI 在研

專業資格認證及獎項

Bruker掃描探針顯微鏡操作證書

2020年“行星科學”暑期學校結業證書

國家勵志獎學金（2011、2012）

國家獎學金（2010）

學術機構及社會任職

中國礦物巖石地球化學學會 終身會員

國際SCI期刊Applied Clay Science、Clay science等的審稿人

學術成果

期刊文章：

Du, P. X., Yuan, P., Liu, J., Yang, Y., Bu, H., Wang, S., Zhou, J., Song, H., Liu, D., Michalski, J.R., Liu, C., 2020. Effects of environmental Fe concentrations on formation and evolution of allophane in Al-Si-Fe systems: Implications for both Earth and Mars. *Journal of Geophysical Research - Planets* Accepted.

Du, P. X.; Thill, A.; Yuan, P.; Wang, S.; Liu, D.; Gobeaux, F.; Deng, L.; Song, Y., Tailoring structure and surface chemistry of hollow allophane nanospheres for optimization of aggregation by facile methyl modification. *Applied Surface Science* 2020, 510, 145453.

Du, P. X.; Yuan, P.; Liu, D.; Wang, S.; Song, H. Z.; Guo, H. Z., Calcination-induced changes in structure, morphology, and porosity of allophane. *Applied Clay Science* 2018, 158, 211-218.

Du, P. X.; Liu, D.; Yuan, P.; Deng, L.; Wang, S.; Zhou, J.; Zhong, X., Controlling the macroscopic liquid-like behaviour of halloysite-based solvent-free nanofluids via a facile core pretreatment. *Applied Clay Science* 2018, 156, 126-133.

Du, P. X.; Yuan, P.; Thill, A.; Annabi-Bergaya, F.; Liu, D.; Wang, S., Insights into the formation mechanism of imogolite from a full-range observation of its sol-gel growth. *Applied Clay Science* 2017, 150, 115-124.

杜培鑫; 袁鹏; 庄官政, 纳米管状埃洛石的应用矿物学研究进展. *矿产保护与利用* 2019, 39(6), 77-86.

杜培鑫; 袁鹏, 叶腊石在超硬材料等关键矿物材料领域的研究和应用. *矿产保护与利用* 2019, 39(6), 87-92.

杜培鑫; 万华仙; 孙红娟, 蒙脱石对Sr、Cs、Pb等重金属离子吸附作用的研究. *非金属矿* 2012, 57-60.

杜培鑫; 康军利; 郑赫; 董恩臣; 黄根, 西南科技大学污水回用方案研究. *环境科学与管理* 2012, 105-109.

Wang, S., **Du, P. X.**, Yuan, P., Liu, Y., Song, H., Zhou, J., Deng, L., Liu, D., 2020. Structural alterations of synthetic allophane under acidic conditions: Implications for understanding the acidification of allophanic Andosols. *Geoderma* 376, 114561.

Deng, L.; **Du, P. X.**; Yu, W.; Yuan, P.; Annabi-Bergaya, F.; Liu, D.; Zhou, J., Novel hierarchically porous allophane/diatomite nanocomposite for benzene adsorption. *Applied Clay Science* 2019, 168, 155-163.

袁鹏; **杜培鑫**; 周军明; 王顺, 铝硅酸盐纳米矿物的地质意义和资源价值再认识. *岩石学报* 2019, 35 (1), 164-176.

Wang, S.; **Du, P. X.**; Yuan, P.; Zhong, X. M.; Liu, Y. Q.; Liu, D.; Deng, L. L., Changes in the structure and porosity of hollow spherical allophane under alkaline conditions. *Applied Clay Science* 2018, 166, 242-249.

Song, Y.; Yuan, P.; **Du, P. X.**; Deng, L.; Wei, Y.; Liu, D.; Zhong, X.; Zhou, J., A novel halloysite-CeO_x nanohybrid for efficient arsenic removal. *Applied Clay Science* 2020, 186, 105450.

Deng, L.; Liu, D.; **Du, P. X.**; Bu, H.; Song, Y.; Tian, Q.; Yuan, W.; Yuan, P.; Liu, Z.; He, H., Enhancement of Diatomite Solid Acidity by Al Incorporation, as Evaluated by the Catalytic Effects on the Thermal Decomposition of 12-aminolauric Acid. *Colloids and Surfaces A: Physicochemical and Engineering Aspects* 2016, 509, 190-194.

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- Li, Y.; Chen, M.; Liu, C.; Song, H.; Yuan, P.; Zhang, B.; Liu, D.; **Du, P. X.**, Effects of layer-charge distribution of 2:1 clay minerals on methane hydrate formation: A molecular dynamics simulation study. *Langmuir* 2020, 36 (13), 3323-3335.
- Wei, Y. F.; Yuan, P.; Liu, D.; Losic, D.; Tan, D. Y.; Chen, F. R.; Liu, H. C.; Zhou, J. M.; **Du, P. X.**; Song, Y. R., Activation of natural halloysite nanotubes by introducing lanthanum oxycarbonate nanoparticles via co-calcination for outstanding phosphate removal. *Chemical Communications* 2019, 55, 2110-2113.
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- Zhou, X.; Liu, D.; Bu, H.; Deng, L.; Liu, H.; Yuan, P.; **Du, P. X.**; Song, H., XRD-based quantitative analysis of clay minerals using reference intensity ratios, mineral intensity factors, Rietveld, and full pattern summation methods: A critical review. *Solid Earth Sciences* 2018, 3, 16-29.
- 庄官政; 邓亮亮; **杜培鑫**; 袁鹏; 刘冬, 硅藻蛋白石基先进材料的构建和应用研究进展. *矿产保护与利用* 2019, 39 (6), 121-133.
- 周翔; 刘冬; 卜红玲; 宋弘喆; **杜培鑫**; 袁鹏; 刘红梅, 基于MIF法的几种黏土矿物X射线衍射定量研究. *中国矿业* 2018, 27, 121-127.

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會議論文：

Du, P.X., Yuan, P., Deng, L.L., Liu, D., Song, Y.R., 2016. Solvothermal synthesis of nanosized tubular imogolite: An atomic force microscopy observation, The 3rd Asian Clay Conference, Guangzhou, Guangdong, China.

Du, P.X., Yuan, P., Deng, L.L., Liu, D., Song, Y.R., 2017. A full-range observation on sol-gel synthesis of imogolite using atomic force microscopy, The 54th Annual Clay Minerals Society Conference - Living Clays, Edmonton, Alberta, Canada.

Du, P.X., Yuan, P., Liu, D., Wang, S., Song, H., Guo, H., 2018. Structure, morphology and porosity changes of allophane under heating, 2018 International Conference on Nanogeosciences, Guiyang, China.

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Liu, D., **Du, P.X.**, Yuan, P., Bu, H., 2020. Direct evidence of aluminum occurrence in the interlayer space of hydroxyl interlayered vermiculite (HIV) in subtropical soils, The 4th Asian Clay Conference, Pattaya, Thailand.

Yuan, P., **Du, P.X.**, Liu, D., Wang, S., Song, H., Guo, H., 2018. Structure, morphology and porosity changes of allophane under heating, XXII Meeting of the International Mineralogical Association, Melbourne.

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Yuan, P., Wei, Y., Liu, D., Liu, H., Zhou, J., **Du, P. X.**, Song, Y., 2019. Activation of halloysite and kaolinite by introducing lanthanum oxycarbonate nanoparticles via co-calcination for efficient phosphate removal, 2019 EUROCLAY International Conference on Clay Science and Technology, Paris.

Song, Y., Yuan, P., Liu, D., Deng, L., Tian, Q., Zhou, J., **Du, P.X.**, 2018. Novel Al₂O₃-MnO₂@diatomite nanohybrid for efficient phosphate removal, XXII Meeting of the International Mineralogical Association, Melbourne.

Deng, L., Yuan, P., Annabi-Bergaya, F., Liu, D., **Du, P.X.**, Zhou, J., Wang, S., Zhong, X., 2016. Montmorillonite, kaolinite and halloysite as adsorbents for benzene adsorption, The 3rd Asian Clay Conference, Guangzhou, Guangdong, China.

杜培鑫, 袁鹏, 刘冬, 王顺, 邓亮亮, 2019. 水铝英石结构中的铁-铝类质同象置换机制初探, 中国矿物岩石地球化学学会第17届学术年会, 中国浙江杭州.

杜培鑫, 袁鹏, 刘冬, 邓亮亮, 宋雅然, 2017. 纳米管状伊毛缟石的溶胶-凝胶法合成机理, 中国矿物岩石地球化学学会第九次全国会员代表大会暨第16届学术年会, 中国陕西西安.

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袁鹏, **杜培鑫**, 周军明, 王顺, 2019. 铝硅酸盐纳米矿物在地球物质循环中的作用及其资源价值简析, 中国矿物岩石地球化学学会第17届学术年会, 中国浙江杭州.

王顺, **杜培鑫**, 袁鹏, 刘冬, 刘亚琦, 2019. 水铝英石在酸、碱、热条件下的结构演化和机理, 中国矿物岩石地球化学学会第17届学术年会, 中国浙江杭州.

袁鹏, 魏燕富, 刘冬, 刘红昌, **杜培鑫**, 周军明, 2019. 埃洛石和高岭石结构铝的共煅烧活化用于吸附反应, 中国矿物岩石地球化学学会第17届学术年会, 中国浙江杭州.

袁鹏, 刘冬, 田倩, 周军明, 宋雅然, 魏辉煌, 王顺, 周洁玉, 邓亮亮, **杜培鑫**, 2019. 硅藻质A型蛋白石成分和结构的新认识, 中国矿物岩石地球化学学会第17届学术年会, 中国浙江杭州.

周军明, 袁鹏, 张佰发, 刘冬, 樊文鼎, **杜培鑫**, 2019. 八尺稀土矿凝灰岩风化壳中黏土矿物对稀土元素赋存的作用初探, 中国矿物岩石地球化学学会第17届学术年会, 中国浙江杭州.

邓亮亮, 袁鹏, 刘冬, **杜培鑫**, 周军明, 2016. 层状硅酸盐矿物的微结构对其苯吸附性的影响, 2016年全国矿物科学与工程学术研讨会, 中国北京.

杜培鑫, 袁鹏, 刘冬, 王顺, 邓亮亮, 2018. 铝硅酸盐纳米矿物水铝英石和伊毛缟石的结构与调控, 2018年全国矿物科学与工程学术会议, 中国四川绵阳.

刘冬, 田倩, 周洁玉, **杜培鑫**, 魏辉煌, 袁鹏, 2019. 红壤中1.4 nm蛭石型羟基间层黏土矿物(1.4nm-HIV)的固体酸性研究, 2019年中国地球科学联合学术年会, 中国北京.