

Dr. Zhibin Lei | 雷志斌 博士
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Education

2022	Ph.D. • Earth Science (Geodynamics)	Cardiff University, Cardiff, UK
2017	M.S. • Geology	China University of Petroleum, Beijing, China
2014	B.Eng. • Geological Engineering	China University of Petroleum, Beijing, China

Research output

In preparation

Lei, Z., Davies, J. H., Impact of trench retreat rate on initiating focused back-arc extension within a mobile overriding plate. (to submit to *Solid Earth*) [[preprint](#)]

Lei, Z., Davies, J. H., The role of heterogeneity in affecting the localization of extension within the overriding plate during subduction.

2022

Wang, J., Gleeson, M., Smith, W. D., Ma, L., **Lei, Z.**, Shi, G., & Chen, L. (2022). The factors controlling along-arc and across-arc variations of primitive arc magma compositions: A global perspective. *Frontiers in Earth Science*, 10, 1055255. <https://doi.org/10.3389/feart.2022.1055255>

Lei, Z. (2022). Numerical investigation of the influence of subduction on deformation within the overriding plate. PhD Thesis, *Cardiff University*. <https://orca.cardiff.ac.uk/id/eprint/152759>

Lei, Z., Davies, J. H. (2022). Progressive weakening within the overriding plate during dual inward dipping subduction (*under review at **Tectonophysics***). [[preprint](#)]/[[talk](#)]

2020

Bai, D., Yang, M., **Lei, Z.**, & Zhang, Y. (2020). Effect of tectonic evolution on hydrocarbon charging time: A case study from Lower Shihezi Formation (Guadalupian), the Hangjinqi area, northern Ordos. *Journal of Petroleum Science and Engineering*, 184, 106465. <https://doi.org/10.1016/j.petrol.2019.106465>

Before 2020

杨明慧, 张厚和, 廖宗宝, 罗晓华, **雷志斌**, 张少华, 张雨田, 李毅玮. (2017). 南海南沙海域沉积盆地构造演化与油气成藏规律. *大地构造与成矿学*, 41(4), 710-720. <https://doi:10.16539/j.dggzyckx.2017.04.007>

雷志斌, 杨明慧, 张厚和, 廖宗宝, 张少华, 罗晓华. (2016). 南沙海域南部第三纪三角洲演化与油气聚集. *海相油气地质*, 21(4), 21-33. <https://doi:10.3969/j.issn.1672-9854.2016.04.003>

Awards

2021 • EGU • The Virtual Outstanding Student and PhD candidate Presentation (vOSPP) Award [[link](#)] [[poster](#)]

Talks & Presentations

2022 • Ada Lovelace Workshop on Numerical Modelling of Mantle and Lithosphere Dynamics • *Progressive weakening within the overriding plate during dual inward dipping subduction* [[slides](#)] [[recording](#)]

Skills

Coding: Experienced in a) designing and running numerical simulations on high-performance computing (**HPC**); b) post-processing and visualizing large dataset. **Fluidity**, **Paraview**, **Python**, **GMT** etc. are some code or software I have rich experience with, and I am always happy to explore new research tools.

Outreach & Services

2023 • EGU Geodynamics blog editor, edited blogs can be found at <https://blogs.egu.eu/divisions/gd/author/lei/>.