

Research project and supervisor team

Supervisory Team	Yong Shi (Lead supervisor, Personal Webpage), Yong Ren (Co-supervisor), Yuying Yan (Co-supervisor)
Short introduction & description of research project	<p>A profound understanding of shale-gas transport is of crucial importance to improve its extraction efficiency and maximize gas production. This project will conduct an in-depth study on shale-gas flow and mass transfer in complex porous networks with pores at the micro- and nanoscale. Focuses will be placed on investigating non-continuum and non-ideal effects in these interesting transport processes using the kinetic theory of gases, together with characterizing complex shale morphology by statistical and topological analysis. The study will reveal flow and mass transfer features of shale gas at different scales through use of analytical derivation, numerical simulation and experimental observation.</p> <p>This PhD program will support a talented candidate to develop a set of effective and viable multiscale models to reveal non-continuum and non-ideal transport characteristics of shale gas in complex micro and nanoporous media. On successful completion of this program, the student will be awarded a PhD degree from the University of Nottingham.</p>
Contact points	For more information about this full scholarship, please contact Dr. Yong Shi at Yong.Shi@nottingham.edu.cn .