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摘要:

南海北部深水区已经获得了重大的天然气发现,正逐渐成为全球深水勘探的热点区之一。通过与相邻陆缘类比发现,南海北部深水区具有独特的石油地质特征。南海北部大陆边缘经历了从燕山期主动陆缘向新生代边缘和成盆机制复杂;陆坡深水区具“热盆”特征,凹陷普遍发育超压,其生烃机制不明;深水区距离物源区较远,源沉积特征,未发现盐层及其相关构造,其油气成藏条件具有特殊性。此外,南海北部深水区海底地形崎岖、多等地球物理难题。因此,南海北部深水油气勘探需要在借鉴相邻陆架区和世界其他深水区成功经验的基础上,一方面研发适应于我国深水环境的地球物理新技术,切实推动深水勘探的进程。

关键词: [南海北部](#) [深水区](#) [油气勘探](#)

Some key geological issues on oil and gas exploration in the northern deepwater area of the South China Sea [Download Fulltext](#)

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Abstract:

The discovery of natural gas field in the deep water area of the northern margin of the South China Sea as one of the hot areas in global oil and gas exploration. Comparative studies of deepwater basin and adjacent continental shelf areas show that the deepwater area of the northern SCS is featured by the following: tectonic transition from the active margin in Yanshan period to Cenozoic passive margin; evolution and basin formation mechanism. The thermal regime is hotter in the deepwater slope area and is generally found in the depressions there, along with ambiguous hydrocarbon formation process. Due to the provenance and lack of the material flux from the big rivers, this area is with distal sedimentation. The tectonics is found in this area. All the phenomena mentioned above suggest its unique hydrocarbon formation topography in deep water area of the northern SCS is rugged, along with multiple volcanoes, which brings difficulties for geophysical data acquisition and process. In a conclusion, the oil and gas exploration in the SCS should take the successful experiences in any other deep water areas in the world as reference. Research on its structural and petroleum geology; meanwhile, the new geophysical technologies for deepwater also need to promote the progress of oil and gas exploration.

Keywords: [Northern South China Sea](#) [Deepwater area](#) [Oil and gas exploration](#)