

of Ciying Formation in the Lower Tertiary, with a depth ranging from 400 to 800 m. The major factors which control biogas reservoir include: 1) The Luliang basin pulled apart and subsided dramatically in the Tertiary and sediments compensated rapidly. Sedimentation rate of the Ciying Formation reached 200 to 500 m/Ma, forming favorable structural setting to biogas reservoir; 2) The 3rd and 4th members of Ciying Formation developed humic organic matter of rich herbage, moreover, the 2nd member of Ciying Formation mainly developed humosapropelinite; 3) Medium burial depth of the 3rd and 4th members of Ciying Formation in deep depression, and the geothermal temperature of 30~ 60 °C are favorable to the increase of methane bacteria; 4) Nitrate and sulphate were nearly depleted below 400 m, therefore methane bacteria increased dramatically; 5) In this depth range, pore volume of mudstone reaches 10~ 140 μm, which motivated dramatic activity of methane bacteria; 6) In this depth range, methane formed rapidly in mudstone to prevent the diffusing of underlying methane reservoir. Distribution of biogas reservoir laterally is controlled by sedimentary facies and structural elements. Favorable sedimentary facies include transition zone between deep depressions of the 3rd and 4th members of Ciying Formation which are major gas producing layer, and all kinds of clastic rocks. Favorable structural elements include deep depression and slope intra-zone. The overlapped zone is favorable to biogas reservoir formation: 1) The 3rd and 4th members of Ciying Formation have big thickness and medium burial depth. They are in the period of dramatic activity of methane bacteria and have big gas producing ability; 2) Seal thickness is big with good sealling condition; 3) Fault density is far lower than that of border faulted zone and slope outer zone, which is favorable to the preservation of biogas reservoir; 4) Sand-shale ratio is mediate and lithologic and lithologic- structural trap are developed; 5) There is a barrier between reservoir and atmospheric water of basin margin forming reducing environment with low sulphate which is favorable to methane bacteria activity.

Key Words: formation and distribution ; biogas reservoir; Tertiary ; the Luliang Basin

《石油实验地质》入编《中国知识资源总库·中国科技期刊精品数据库》

10月16日,《石油实验地质》编辑部收到《中国知识资源总库》编辑委员会的收录证书,该刊被正式选入《中国知识资源总库·中国科技期刊精品数据库》。

《中国知识资源总库》由国家新闻出版总署批准,清华大学主办,中国学术期刊(光盘版)电子杂志社出版、清华同方知网(北京)技术有限公司发行,是目前我国最大的综合性知识信息数据库。通过对《中国期刊全文数据库》中近8000种期刊10年的引文分析与综合评价,经《中国知识资源总库》专家委员会审核,遴选500种科技类期刊编辑出版《中国科技期刊精品数据库》,《石油实验地质》名列其中。

由中国石化石油勘探开发研究院、中国地质学会石油地质专业委员会主办、中国石化无锡石油地质研究所承办的《石油实验地质》杂志,坚持正确的办刊方向,坚持百花齐放、百家争鸣的方针,营造了浓郁的学术氛围。该刊紧紧围绕国家及中国石化油气勘探发展战略,面向油气勘探主战场,紧密追踪重大科研项目和重点攻关项目进行组稿,在传播石油地质新理论、新技术、新方法、新成果,指导油气勘查与开发,为发展我国石油地质学,促进国内外学术交流诸多方面作出了重要贡献。10年来,该刊共发表学术论文及各类文章逾千篇,这些文章,既有探索性强的理论成果,也有对新区新领域的深入总结,还有大量新技术、新方法的论文,这些成果发表后产生了可观的社会效益及经济效益,提高了石油地质勘探的学术水平,促进了具有中国特色的石油地质理论及方法的形成与发展,开辟了油气勘探的新视野,为油气勘探提供了新的依据与理论支撑。该刊近几年来,影响因子和总被引频次稳步攀升,连年被评为中国自然科学核心期刊,最近又被正式入选《中国知识资源总库·中国科技期刊精品数据库》,表明该刊的学术地位与学术影响力进一步提高,越来越受到广大读者的厚爱。

(杨建超)