

引用本文(Citation):

单玄龙,秦树洪,张艳,杨宝俊,汪名友. 松辽盆地北部浅部基底推覆伸展作用的地震学证据与地质意义. 地球物理学报, 2009,52(8): 2044-2049,doi: 10.3969/j.issn.0001-5733.2009.08.012

SHAN Xuan-Long; QIN Shu-Hong; ZHANG Yan; YANG Bao-Jun; WANG Ming-You. Seismic evidence and geological significance of thrust-extension structure in upper basement of north Songliao Basin. Chinese J. Geophys. (in Chinese), 2009, 52(8): 2044-2049, doi: 10.3969/j.issn.0001-5733.2009.08.012

松辽盆地北部浅部基底推覆伸展作用的地震学证据与地质意义

单玄龙¹, 秦树洪², 张艳¹, 杨宝俊², 汪名友^{1*}

1 吉林大学地球科学学院, 长春 130061

2 吉林大学地球探测科学与技术学院, 长春 130026

Seismic evidence and geological significance of thrust-extension structure in upper basement of north Songliao Basin

SHAN Xuan-Long¹; QIN Shu-Hong²; ZHANG Yan¹; YANG Bao-Jun²; WANG Ming-You^{1*}

1 College of Earth Sciences, Jilin University, Changchun 130061, China

2 College of Geoprospection Science and Technology, Jilin University, Changchun 130026, China

摘要

参考文献

相关文章

Download: [PDF \(2179KB\)](#) [HTML 0KB](#) Export: [BibTeX](#) or [EndNote \(RIS\)](#) [Supporting Info](#)

摘要 已经利用近垂直反射地震叠偏剖面得到太平洋板块西向俯冲远程应力场形成上部地壳滑脱断裂的证据,在此基础上,利用油气地震叠偏剖面发现中远程的蒙古—鄂霍茨克缝合带、远程的太平洋板块西向俯冲带在松辽盆地滨北地区浅部基底共同作用形成的逆冲推覆断裂系统.该断裂系统基本呈双向形式,纵向与横向上表现出不均匀的强度,向西逆冲推覆的断裂系统厚度范围可达到约3~4 km,向东的断裂系统厚度范围可达到约1~2 km,断裂系统组构比较复杂.通过对控盆断裂孙吴—双辽断裂两侧地球物理场分布特征的分析,认为松辽盆地浅部基底的逆冲推覆断裂系统是叠加在孙吴—双辽断裂之上的新的断裂系统.考虑到蒙古—鄂霍茨克缝合带在远离1000多公里之外所产生的内蒙古阴山—燕山大型逆冲推覆断裂带以及松辽盆地的区域构造位置,认为在松辽盆地南部和滨北地区孙吴—双辽断裂构造线之外也应该存在浅部基底内的逆冲推覆断裂.

关键词 松辽盆地滨北地区, 蒙古—鄂霍茨克缝合带, 太平洋板块西向俯冲带, 浅部基底逆冲推覆断裂系统, 油气地震叠偏剖面

Abstract: Nearly vertical seismic reflection stacked migration section study has proved that the distant stress field formed by the westward subduction of Pacific plate lead to the detachment of upper crust. In the upper basement of Songliao basin in Binbei area, the thrust-nappe fault system was controlled by middle-distance Mongolia-Okhotsk suture zone and distant westward subduction of Pacific plate together. The fault system shows bidirection and the asymmetric intensity shows in longitudinal and transverse directions. The thickness is 3~4 km and 1~2 km for the westward thrust-nappe fault system and the eastward fault system, respectively. The structure of fault system is complex. According to the distribution of geophysical field along both sides of the Sunwu-Shuangliao fault which controlled the evolution of the basin, the thrust-nappe fault system in the upper basement of Songliao basin was overlapped on the Sunwu-Shuangliao fault. As we know, the Mongolia-Okhotsk suture zone has formed the huge Yinshan-Yanshan thrust-nappe zone more than 1000 km far away from the suture zone. Taking this and the regional tectonic environment of Songliao basin into account, a thrust-nappe fault system should be formed in the south Songliao basin and the Binbei area beyond the Sunwu-Shuangliao fault system.

Keywords Binbei area of Songliao basin, Mongolia-Okhotsk suture zone, Westward subduction zone of Pacific plate, Thrust-nappe fault system in upper basement, Oil-gas seismic stacked migration section

Received 2008-01-16;

Corresponding Authors: 杨宝俊

链接本文:

<http://118.145.16.227/geophy/CN/10.3969/j.issn.0001-5733.2009.08.012> 或 <http://118.145.16.227/geophy/CN/Y2009/V52/I8/2044>

[查看全文](#) [下载PDF阅读器](#)

Service

[把本文推荐给朋友](#)

[加入我的书架](#)

[加入引用管理器](#)

[Email Alert](#)

[RSS](#)

作者相关文章

[单玄龙](#)

[秦树洪](#)

[张艳](#)

[杨宝俊](#)

[汪名友](#)

