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青藏高原西缘上地幔构造特征— 穿越西昆仑造山带的接收函数反演 [点此下载全文](#)

[薛光琦](#) [钱辉](#) [姜枚](#)

1)

中国地质科学院矿产资源研究所, 北京, 100037; 2)

中国地质科学院地质研究所, 北京, 100037

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摘要:

塔里木岩石圈和青藏高原岩石圈汇聚于空喀山断裂一带, 推测塔里木岩石圈在向南俯冲, 而青藏高原岩石圈也在持续地向北推进; 位于空喀山断裂带北侧的甜水海地体下方存在一深达200 km 的s波低速异常, 描绘了由于多期的造山运动使得昆仑地体的深度发生了巨大的形变, 形成软流层和地幔物质的通道, 产生了局部范围的熔融; 在塔里木盆地南缘的叶城下方, 存在一条明显的深达上地幔的低速带。这条连接表层与深部的低速带被推测为塔里木南缘的隐伏深断裂。另外, 地幔中尖晶石型向方镁石型结构转变的过渡层有可能出现在670 700 km 深度间。

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Tectonic Characteristic of Mantle on the West Edge of Qinghai-Xizang Plateau— Receiver Function Inversion through West Kunlun Orogenic Belt [Download Fulltext](#)

[XUE Guangqi](#) [QIAN Hui](#) [JIANG Mei](#)

1)

Institute of Mineral Resources, Chinese Academy of Geological Science, Beijing, 100037 2)

Institute of Geology, Chinese Academy of Geological Science, Beijing, 100037

Fund Project:

Abstract:

The lithosphere of Tarim Basin and Qinghai-Xizang(Tibet)Plateau converges along Kongga Fault belt and it is inferred that the Tarim lithosphere is subducting southward, nevertheless Tibet lithosphere remains its advancing northward also; there is a low velocity abnormality of S wave located at the depth of 200 km beneath Tianshuihai Terrain on the north of Kongga Fault, which indicate the passage of asthenosphere and mantle materials formed by large deformation below Kunlun Terrain of multiple folded Orogenic movement, so that it may induce partial melting. An obvious LVZ reaching to upper mantle might exist beneath Yecheng at the south edge of Tarim Basin, which is presumed as deep fault concealed beneath south of Tarim. In addition, the conversion interface between wolframite phase and magnesiowustite phase could appear at the depth from 670 to 700 km.

Keywords: [receive function](#) [Qinghai-Xizang\(Tibet\)plateau](#) [partial melting](#) [conversion interface](#) [subduction](#)

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