

董昕,张泽明. 2013. 拉萨地体南部早侏罗世岩浆岩的成因和构造意义. 岩石学报, 29(6): 1933-1948

拉萨地体南部早侏罗世岩浆岩的成因和构造意义

作者	单位	E-mail
董昕	大陆构造与动力学国家重点实验室,中国地质科学院地质研究所,北京 100037	dongxin5811935@163.com
张泽明	大陆构造与动力学国家重点实验室,中国地质科学院地质研究所,北京 100037	

基金项目: 本文受中国地质调查局地质调查工作项目(1212011121269)、国家自然科学基金项目(41202035、41230205、40921001)和中国地质科学院地质研究所基本科研业务费(J1203)联合资助。

摘要:

本文从拉萨地体南部原来被认为是前寒武纪变质基底的冈底斯岩群中厘定出了一套早侏罗世的岩浆岩。锆石U-Pb年代学研究表明,这些岩浆岩侵位于202~180Ma。岩石类型包括辉长闪长岩、二长岩和花岗闪长岩,是一套中酸性、偏铝质钙碱性、I型花岗岩类。微量元素表现出消减带富集大离子亲石元素、亏损高场强元素的特征,并具有岛弧花岗岩的亲缘性。锆石Hf同位素研究表明,加查地区中酸性岩石来自新生地壳物质的熔融,偏基性岩石来自于亏损地幔。而桑日地区的酸性岩石来自于古老地壳物质的重熔。本文认为包括研究区在内的南拉萨地体中的晚三叠世-早侏罗世岩浆岩为俯冲到南拉萨地体之下的松多洋壳断离或回卷,软流圈地幔上涌,地幔楔熔融并加热上覆地壳的产物。

英文摘要:

This paper reports a suit of the Early Jurassic magmatic rocks, which were interpreted previously as the Precambrian metamorphic basement of the Lhasa terrane. The zircon U-Pb chronology indicates that these magmatic rocks crystallized at the Early Jurassic of 202Ma to 180Ma. These magmatic rocks include gabbro-diorite, monzonite and granodiorite, and belong to intermediate-acid, metaluminous, calc-alkaline and I type granitoids. The trace elements of the magmatic rocks are rich in large ion lithophile elements and depleted in high field strength elements, with volcanic arc granite affinity. The Hf isotope composition of zircon suggests that the intermediate-acid rocks from Jiacha were derived from the melting of the juvenile crust, the mafic rock from Jiacha from the melting of depleted mantle, whereas the acid rocks from Sangri were derived from the reworking of old crust. We account that the Late Triassic to Early Jurassic magmatic rocks in the southern Lhasa subterranean, including the rocks of this study, are the products of the melting of mantle wedge with the overlying crust heated by the upwelling asthenospheric mantle that caused by the breaking off or rolling back of Sumdo oceanic crust subducted beneath the southern Lhasa subterranean.

关键词: [拉萨地体](#) [早侏罗世](#) [岩浆作用](#) [岩石学](#) [年代学](#)

投稿时间: 2013-01-11 最后修改时间: 2013-04-14

[HTML](#) [查看全文](#) [查看/发表评论](#) [下载PDF阅读器](#)

黔ICP备07002071号-2

主办单位: 中国矿物岩石地球化学学会

单位地址: 北京9825信箱/北京朝阳区北土城西路19号

本系统由北京勤云科技发展有限公司设计

[linezing.com](#)