

## 甘肃北山营毛沱地区公婆泉群中玄武岩同位素定年及其地质意义

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作者	单位	E-mail
<a href="#">王立社</a>	<a href="#">西安地质矿产研究所</a>	<a href="mailto:xawlishe@cgs.gov.cn">xawlishe@cgs.gov.cn</a>
<a href="#">杨建国</a>	<a href="#">西安地质矿产研究所</a>	
<a href="#">王育习</a>	<a href="#">西安地质矿产研究所</a>	
<a href="#">雷永孝</a>	<a href="#">西安地质矿产研究所</a>	
<a href="#">谢春林</a>	<a href="#">西安地质矿产研究所</a>	
<a href="#">曹红霞</a>	<a href="#">陕西延长石油集团有限责任公司研究院</a>	
<a href="#">杨鹏飞</a>	<a href="#">西安地质矿产研究所</a>	
<a href="#">齐亚林</a>	<a href="#">长庆油田研究院</a>	
<a href="#">高明</a>	<a href="#">陕西核工业局224大队</a>	

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中文摘要:首次利用锆石LA-ICP-MS U-Pb法定年,发现甘肃北山营毛沱地区火石山西北处原中上志留统公婆泉群中有结晶年龄为早石炭世((333.1±9.8) Ma)的玄武岩,同时发现公婆泉群中存在晚泥盆世物质的信息(继承性锆石年龄(358±17) Ma),结合北山各地段公婆泉群中志留纪化石部分可延至泥盆?石炭纪,认为公婆泉群形成时代可能从志留纪跨越至早石炭世,表明塔里木板块与哈萨克斯坦板块的俯冲效应可能延续到早石炭世。

中文关键词:[北山](#) [公婆泉群](#) [玄武岩](#) [同位素年龄](#)

## Isotopic Dating of Basalt from Gongpoquan Group in Yingmaotuo Area of the Beishan Mountain, Gansu Province, and Its Geological Significance

**Abstract:**The U-Pb isotopic dating of zircon from basalt of Gongpoquan Group in Yingmaotuo area of the Beishan Mountain yields the ages of (333.1±9.8) Ma and (358±17) Ma. The former indicates that the basic rocks were formed in Early Carboniferous and the latter suggests that the Gongpoquan Group included some Devonian events. A comparative study of this discovery and fossils of Gongpoquan Group has led the authors to believe that this group is composed of Silurian, Devonian and Lower Carboniferous strata instead of merely Silurian strata. In other words, the effect of subduction and collision between the Tarim plate and the Kazakhstan plate probably continued into Lower Carboniferous.