# 华北克拉通南缘龙王 碱性花岗岩U-Pb年龄及其地质意义

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摘要：华北克拉通南缘发育一系列碱性岩体，前人曾划出3个碱性岩带，龙王 碱性岩位于中带，对该岩体形成的确切时代仍有较大争议。一些学者将该岩体作为晋宁期伸展体制下形成的碱性岩，并认为这期岩浆活动与扬子北缘同时代的裂解型岩浆活动可以对应。作者等进行了TIMS和SHRIMP法锆石U-Pb年代学研究。样品(T26)采自河南省栾川县庙子镇之北的卢氏管村西的钠铁闪石正长花岗岩。TIMS法U-Pb上交点年龄为1637Ma±33Ma，SHRIMP法206Pb/238U和207Pb/206Pb表面年龄平均值分别为1611Ma±19Ma和1625Ma±16Ma，3组年龄在误差范围内一致。我们选择SHRIMP法207Pb/206Pb表面年龄平均值1625Ma±16Ma作为龙王 正长花岗岩的形成时代。因此，龙王 碱性花岗岩是华北克拉通1. 8～1. 6Ga裂解过程中最晚期碱性岩浆活动的产物。
关键词：华北克拉通南缘；河南省栾川县；龙王 正长花岗岩；U-Pb年龄；中元古代早期
中图分类号：P588.12+1；P597+.3 文献标识码：A 文章编号：1671-2552(2003)12-0762-07

# U-Pb isotopic ages and their significance of Alkaline Granitein the southern margin of the North China CratOn

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Abstract: A number of alkaline rock bodies occur On the southern margin of the North China cratOn. Previously three alkaline rock belts were distinguished and the LOngwangzhuang alkaline plutOn is located in the central belt. There has been a great dispute about the precise age of the formatiOn of this plutOn. Some geologists cOnsider that this plutOn was formed in the Jinningian extensiOnal regime and believe that this phase of magmatism might be comparable to the Neoproterozoic breakup-type magmatism occurring on the northern margin of the Yangtze plate. The authors have carried out zircOn TIMS and SHRIMP U-Pb chrOnological studies. The sample (T26) was collected from arfvedsOnite syenogranite near Lushiguancun Village north of Miaozi Township， Luanchuan County， Henan Province. The sample has a TIMS upper intercept U-Pb age of 1637±33 Ma and SHRIMP 206Pb/238U and 207Pb/206Pb mean apparent ages of 1611±19 Ma and 1625±16 Ma respectively. The above-mentiOned three isotopic ages are nearly cOnsistent within the allowable error range. The authors choose the age of 1625±16 Ma as the age of formatiOn of the LOngwangzhuang syenogranite. Thus it follows that the LOngwangzhuang alkaline granite is the product of the latest alkaline magmatism in the 1. 8-1. 6 Ga breakup process of the North China cratOn.
Key words: southern margin of the North China cratOn; Luanchuan County， Henan Provinc LOngwangzhuang syenogranite; U-Pb age; early Mesoproterozoic