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基金项目: 本文为国家油气专项“大庆探区外围中生代断陷盆地群演化与油气远景”(编号 XQ 2007 07), 基础地质研究”(编号 G0800 06)和国家自然科学基金““兴蒙海槽”晚古生代构造演化”(编号 40739905

DOI:

摘要点击次数: 126

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摘要:

内蒙古西乌旗地区位于贺根山蛇缘岩带和西拉木伦缝合带之间, 区内岩浆岩分布广泛。本文对达其浑迪和 ICP MS U Pb 定年, 结果表明两个岩体分别形成于 $325 \pm 3\text{Ma}$ 和 $322 \pm 3\text{Ma}$ 。岩石学和地球化学分析结果显示岩石列, 相对富集 Rb、Ba、K 等大离子亲石元素 (LILE), 亏损 Nb、Ta、Ti、P 等高场强元素。地球化学成分表明过区域对比分析, 苏左旗和西乌旗地区均发育一套角闪闪长岩、石英闪长岩、英云闪长岩及花岗闪长岩组合, 与相似, 共同构成早石炭世晚期到晚石炭世的岩浆弧, 该岩浆弧的出现与古亚洲洋板片向北俯冲有关。

关键词: [西乌旗](#) [石英闪长岩](#) [地球化学](#) [晚石炭世](#) [古亚洲洋](#)

Geochemical Characteristic of Carboniferous Quartz Diorite in the Southern Xiwuqi / Its Tectonic Significance [Download Fulltext](#)

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Abstract:

The Xiwuqi area of Inner Mongolia is tectonically situated at the suture zone between Hegen. Magmatic rocks occur widely in the area. LA ICP MS dating for zircon separated from the Daqinhu diorite plutons indicates that both plutons formed at $325 \pm 3\text{Ma}$ and $322 \pm 3\text{Ma}$ respectively. Lithology analysis show that two plutons belong to low K tholeiitic and calc-alkaline series, and are enriched elements (LILE) such as Rb, Ba and K, and depleted in high field strength elements (HFSE) such as Nb, Ta, Ti, P. Geochemical compositions also show that the plutons are characterized by subduction genesis. Combination of hornblende diorite, quartz diorite, tonalite and granodiorite is developed in the area and similar to the complex in island arc and active continental margin. This set of rocks forms a Carboniferous magmatic arc, presence of which may be related to the northward subduction of paleo-Asian Ocean.

Keywords: [Xiwuqi area](#) [quartz diorite](#) [geochemistry](#) [late Carboniferous](#) [paleo-Asian Ocean](#)