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Evolution of the Archean continental crust in the nucleus of the Yangtze block: evidence from geochemistry of 3.0 Ga TTG gneisses in the Kongling high-grade metamorphic terrane, South China

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**Evolution of the Archean continental crust in the nucleus of the Yangtze block:  
evidence from geochemistry of 3.0 Ga TTG gneisses in the Kongling high-grade  
metamorphic terrane, South China**

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**Abstract**

Archean Tonalite-Trondhjemite-Granodiorite (TTG) rocks are scattered within the  
Kongling high-grade metamorphic terrane (KHMT) in the northern South China block. A  
comprehensive geochronological and geochemical study is carried out on the Taoyuan  
granitic gneisses, a newly recognized TTG suite in the northwestern KHMT. This suite  
has long been regarded as a Mesoproterozoic magmatic pluton, but U-Pb zircon ages of

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