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## **A Plate–Tectonic Model for the Evolution of the Daqingshan Granulite belt in Inner Mongolia**

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One of the most important events in the early geological evolutionary history of the Earth was the wide occurrence of granulite belts at the end of the Archaean in the world, which means a possible transformation of evolution mechanism of the crust. More and more geological evidence shows that the Archaean continental crust was rigid and stable enough to start plate–tectonic movement. Archaean granulite belts are just the product of plate–tectonic movement of rigid Archaean crust. The Daqingshan granulite belt, which extends continuously for 230 km in an E–W direction in the Daqing Mountains of Inner Mongolia, is composed of granulite facies metasedimentary and metavolcanic rocks of the Late Archaean Wulashan Group which were formed under conditions of active continental margins. During the Late Archaean, the Wulashan Group rocks underwent granulite facies metamorphism and ductile deformation at temperatures of 750–850°C and pressures of 7–9 kbar, resulting in the formation of a series of folds (F1 and F2) and schistosity (S1 and S2) as well as mineral lineations. At the end of the Archaean, the North China Craton collided with the ancient Mongolian continental block under N–S compression. The granulite facies rocks of the Wulashan Group were thrust onto the surface of the earth from the depth through a series of high–temperature ductile shear zones, i.e. the augen gneissic mylonite zone in the Daqing Mountains area. As a result, the Daqingshan granulite belt appeared along the northern margin of the North China Craton.