

THE EARLY PRECAMBRIAN TECTONIC AND METAMORPHIC EVOLUTION OF NORTH CHINA GRANULITE-FACIES PROVINCE

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The North China granulite facies province(GFP) and adjacent terrains represent the most important and largest Precambrian tectonic units of North China Craton(NCC). Its regional metamorphic and geological map is compiled by the authors, based upon the accumulated data in the recent years. The map reveals that the GFP could be divided into two subprovinces i.e., northern subprovince(NSP) and southern subprovince (SSP). The most important characteristics of SSP is that its structural pattern is inharmonious to the isograd boundaries of the SSP. The NSP is a part of the northern mobile belt along the northern margin of NCC, mainly composed of TTG complex and minor supracrustal sequences. In contrast, the SSP constitutes the major components of NCC, closely associated with the early Precambrian evolution of the craton, it may be subdivided into khondalites terrains, high-pressure granulite tectonic belt, TTG complex--supracrustal sequences domes etc.. Compared with the typical granulite terrains of the world, the tectonic settings for GFP of North China should be assigned to a composite type, which records the Neoarchean collage among different blocks, followed by early Palaeoproterozoic intracratonic rifting and reworking along continental margins. Moreover, granulite-facies metamorphism may occur in a variety of tectonic settings, the relative sequence between major events of granulite-facies metamorphism and tectonic episodes will provide an important constraint for its tectonic model.