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TWO ASYMMETRICAL PERMIAN GRANITIC BELTS IN THE SOUTHEAST CAOB AND THEIR IMPLICATIONS

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There has been much discussion about the evolution of the Southeastern CAOB in the past two decades [Tang, 1990; Hong et al., 1994; Xiao et al., 2003; Li, 2006; Chen et al., 2009; Jian et al., 2010]. Most people believed that the Palaeozoic Asia ocean was closed along the Solonker suture at Permian with two-direction subduction models [Xiao et al., 2003; Jian et al., 2010]. Three E-W subparallel Permian granitic belts took place both side of the Solonker suture, including Erlian-Uliastai belt on north side of the Erlian-Hegengshan ophiolite, south Mongolia-Xilinhot belt the Erlian-Hegengshan ophiolite on the north and the Solonker suture on the south, and the Baotou-Chifeng belt along the north margin of North China Carton on the south of the Solonker suture. Most Permian granitoids in the Erlian-Uliastai belt and Mongolia-Xilinhot belt were intruded

in Early-Middle Permian. They are monzogranite-biotite granite-alkaline granite, and belong to high-K calc-alkaline granite series, showing the similar characters. These granitoids can be combined into one Permian granitic belt (north belt) on the north side of Solonker suture. However, the granitoids Baotou-Chifeng belt (south belt) were emplaced at middle-late Permian. Moreover, these granitoids are differences in their assemblage and geochemical characteristics with that of the Permian granitoids in the north belt. They are mainly diorite-granodiorite-monzogranite, showing the calc-alkaline and high-K calc-alkaline granite characters, and most early Permian granitoids are calc-alkaline, but changed to high calc-alkaline in late Permian. This synchronous and asymmetrical Permian granitoids distribution on the north and south side of

the Solonker suture indicates that the Palaeozoic Asia ocean in this area was closed in multi-stages. Importantly, there is a long Early Permian alkaline (A-type) granite belt (>900 Km) in the north belt, but only few A-type granites were emplaced at the end of Per-

mian in the south belt [Hong et al., 1994; Tong et al., 2015]. It indicates that the subduction to the north should be finished before Permian, while the subduction to south may go on until Late Permian.

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