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Structural evolution of the Precambrian rocks in the Chunchon region of South Korea

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Precambrean metasedimentary rocks in the Chunchon region of South Korea consist primarily of schist, marble, calc-silicate and quartzite. Some detailed structural mapping of Precambrean rocks in the Chunchon region has revealed two metamorphism and six deformation events. Foliations and minor folds generated by first metamorphism (M1) and two deformation events (D1 and D2) are preserved in the relics of the schist within the calc-silicate rocks. Recrystallized calcite in the calc-silicate rocks obliterated the foliation (S1) and minor folds in the schist during second metamorphism (M2) and third deformation event (D3). Some amphibolite with L-fabric and L/S-fabric is intruded before the second metamorphism. Foliations (S2) were generated in the second metamorphism and the third deformation event (D3) and are identified by the hinges of isoclinal folds whose axial planes are parallel to the compositional foliations (S3). Most dominated compositional foliations (S3) in the study area were generated by transposition during the fourth deformation events (D4). Some massive amphibolite is intruded after fourth deformation event. Remarkable fold interference pattern are recognized from the superposition of a set of more open fold (D5) on an early group of isoclinal folds (D4). These structural elements are overprinted by brittle structural elements such as joints and faults during the sixth deformation events (D6) in the Chunchon region of South Korea.