

P-T path of Yangkou lherzolite in Su-Lu ultrahigh pressure metamorphic belt.

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Many coesite eclogites have been found in Su-Lu UHP region in eastern China, and the genesis of them has been discussed. Ultramafic rocks accompanied with UHP eclogite in Yangkou were studied petrologically. This study reveals that the rocks recorded at least four metamorphic stages, 1) HT stage inferred from aluminous pyroxene existence, 2) UHP stage about 710 degrees 4GPa inferred from garnet-pyroxene geothermobarometer using extremely low Al pyroxenes, 3) garnet-spinel lherzolite facies MP stage, and 4) amphibolite facies retrograde stage. These data suggest that the P-T path from stage (2) to (3) was characterized by approximately isothermal decompression. This new datum gives an important constraint for the exhumation mechanism in the Su-Lu region.