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SCG082-04 Room: Exibition hall 7 subroom 2 Time: May 24 09:45-10:00

High-pressure melting of mafic granulite from the Song Ma Suture zone, northern Vietnam

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Crustal melting process due to the collision between the Indochina and South China micro-cratons are investigated from high-pressure mafic granulite occurred in the Song Ma Suture zone, northern Vietnam. Several decompression textures are observed as orthopyroxene + plagioclase corona around garnet and orthopyroxene + augite + Na-rich plagioclase symplectite broken down from sodic clinopyroxene. Chemical zonation of garnet in the granulite and presence of strongly zoned allanite-epidote and Ca-rich garnet in leucosome suggest that partial melting had occurred at deep crustal level (910-930 C and 1.9-2.0 GPa) during the collision. Biotite + spinel+ corundum + Na-rich plagioclase + Ca-rich plagioclase symplectite in leucosome should indicate back reaction between melt and residual phases during exhumation stage.
In our presentation, we will mention petrographical characteristics and trace element compositions of rock-forming minerals in leucosome and host granulite. This study might be important to understand crust-melt interaction at continental collision zone.

Keywords: partial melting, high-pressure granulite, continental collision, Song Ma Suture zone, Vietnam