

Mineralogical paragenesis variations of northwest Sabzevar granulites during metamorphic evolutions

M. Nasrabad^{*1}, H. Moinvaziri², M.H. Razavi², M. Mohajjel³

1- Department of Geology, Imam Khomeini International University

2- Department of Geology, Tarbiat Moallem University

3- Department of Geology, Tarbiat Modarres University

(Received: 1/9/2009, in revised form: 27/5/2010)

Abstract: There are metabasite exposures inside ophiolitic belt of northwest Sabzevar that metamorphosed under high pressure granulite facies. On the basis of mineralogical paragenesis, reactional textures between different mineralogical assemblages, textural and mineralogical relations between inclusion and porphyroblast and stability fields of different mineralogical assemblages, five stages of evolution of metamorphism is distinguished. These stages consist of prograde metamorphic stage (M1), peak metamorphic stage (M2), garnet kelyphitisation as the formation of Pl+Am symplectite and corona (M3), partial or quite replacement of garnet by Am+Chl+Ep assemblage (M4) and the occurrence of Prh-Zl veins. The thermobarometric data of these stages represent a clock-wise P-T path. This path is consistent with the collision of the Iranian micro-continent with the Alborz block and later erosion and uplifting.

Keywords: Sabzevar, granulite, mineralogical paragenesis, metamorphic evolution.

متن فارسی اصل مقاله از صفحه ۵۳۱ تا ۵۴۴ در این شماره به چاپ رسیده است.

^{*}Corresponding author, Tel.: (0281) 8371365, Fax: (0281)3780040, E-mail: Mohsennasrabad@hotmail.com