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## A Study of Petrology, Variety and Origin of Leucosomes and Interpretation of Melting Conditions in Migmatitic Complex of Simin Area (Southeast of Hamadan)

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### Abstract

In the eastern aureole of the Alvand plutonic complex, a band of migmatitic rocks occur which have various structures such as stromatic, ptygmatic, dyctionitic, schollen, surreitic and nebulitic. In this migmatitic complex, separation of melanosome from mesosome is difficult in many cases, so that melanosome has not developed or is very thin. Three types of leucosomes including trondjhemitic, granodioritic and alkali feldspar granitic types occur in migmatites. Field observations and microfabrics show that metamorphic segregation, partial melting and migmatitic injection have been important in migmatization. The partial melting due to ultrametamorphism has been very important. There is also a genetic link between migmatization and formation of S-type granites. Major migmatization due to regional metamorphism has been occurred syn- to pre- intrusion of granites, but contact metamorphism has been also occurred later. The partial melting has been precocious and occurred before the complete change of andalusite to sillimanite. Tectonic disturbances and alternation of thin layers of various rocks caused partial melting has been (not pervasive) and therefore separation of mineral zones is selective difficult, in the region.

**Keywords:** Alvand, partial melting, leucosome, Simin area, Migmatite.

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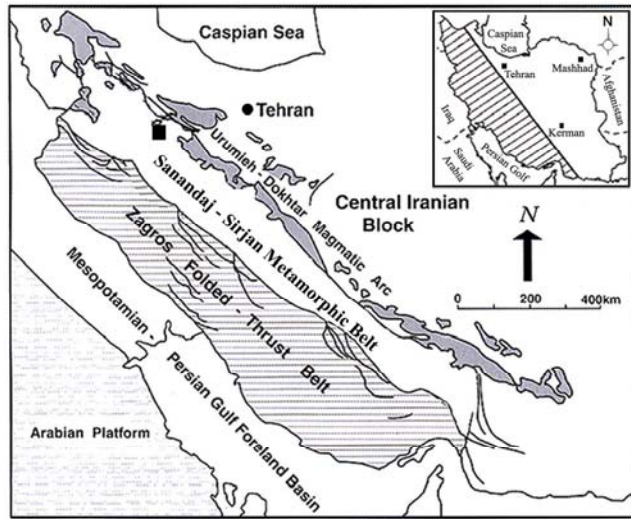
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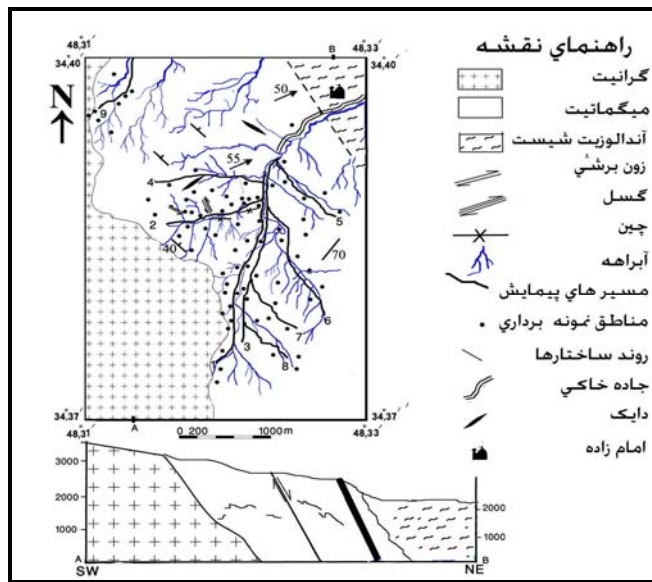
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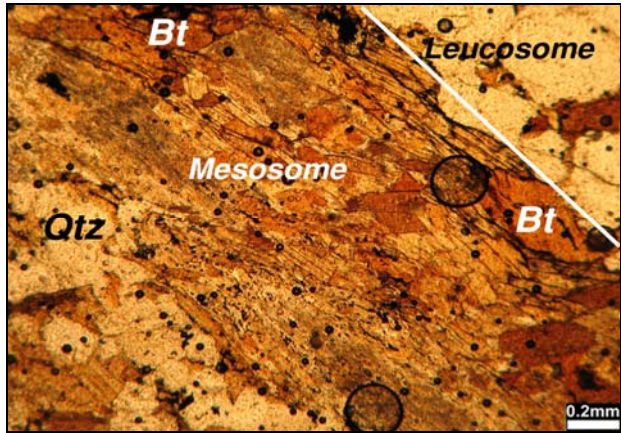
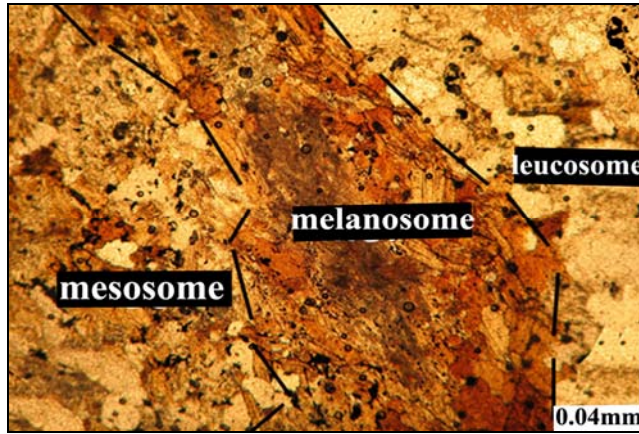
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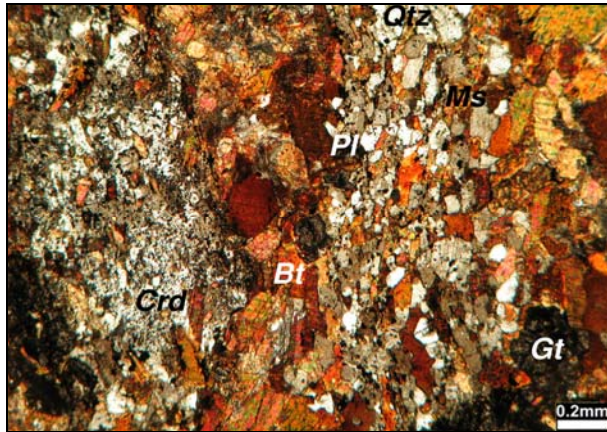
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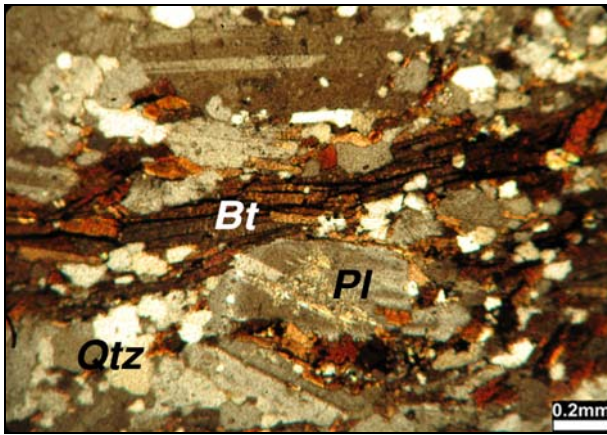
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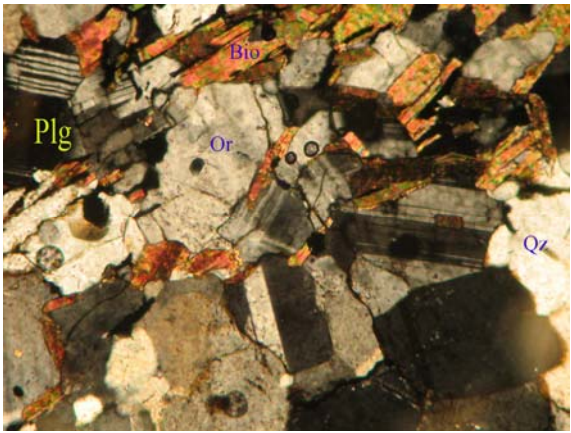
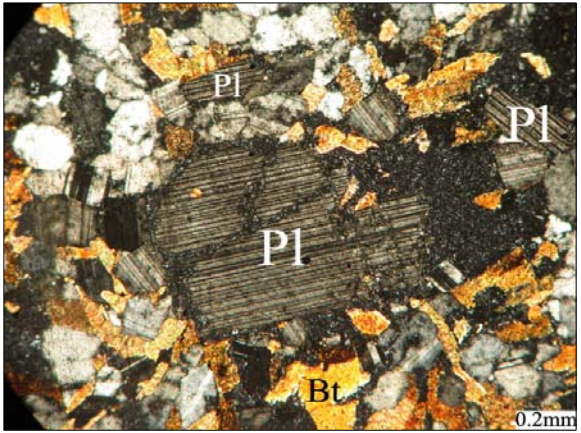


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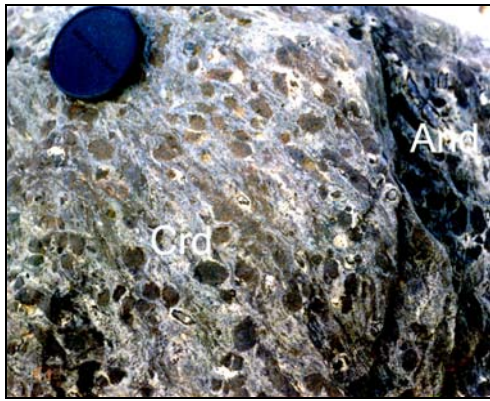




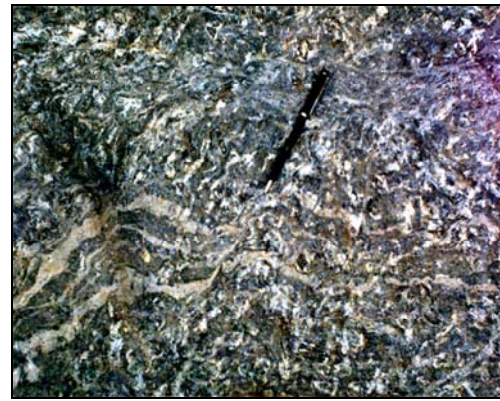
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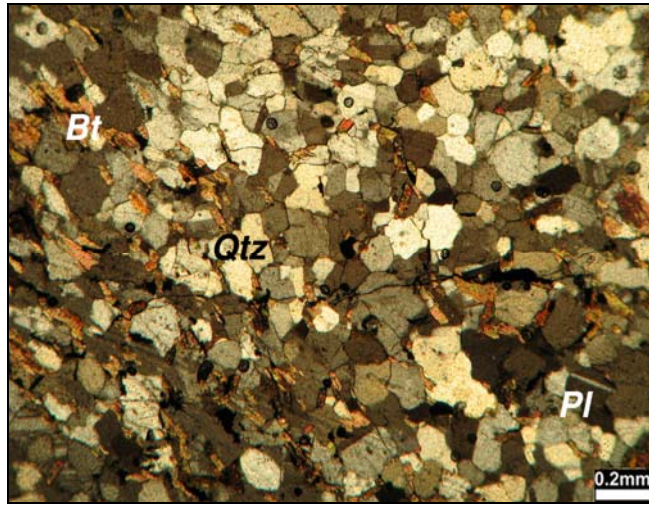
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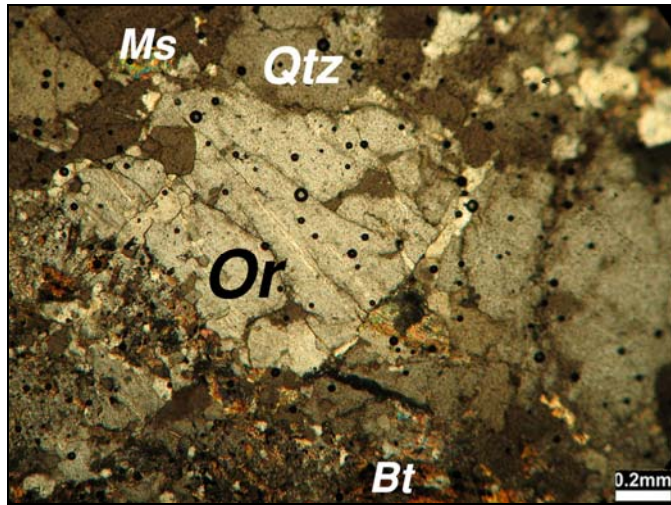
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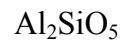
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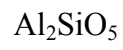
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