عنوان مقاله:

Petrogenetic Importance of Chromite Chemistry in Ophiolites, Mafic-Ultramafic Complexes NW, Pakistan & Ranomena Ultramafic Complex NE, Madagascar: A review

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نویسندگان:

Habib Ullah - *دانشجو*

Saif Ur Rehman - *دانشجو*

Muhammad Jawad Munawar - *مدرس (استادیار)*

Syed Atisham Abbas - *دانشجو*

خلاصه مقاله:

The margin of Indian Plate is limited to Suture Zones at North, North-West and East, those Suture Zones have marked distinctively by Ophiolites and Mafic-Ultramafic complexes in Pakistan. The order of the Ophiolites and Mafic-Ultramafic Complexes from South to North as (a) Bela, (b) Zhob-Muslimbagh, (c) Waziristan, (d) Dargai, (e) Shangla-Mingora, (f) Jijal Complex, (f) Sapat Complex and (g) Chilas Complex. These Ophiolites and Mafic-Ultramafic Complexes are entirely characterized by segregated, lenticular or disseminated Chromite associations. The present study is a critical extensive review of previous works about Chromite Chemistry and their petrogenetic indications. In particular, the Chromite Chemistry played an important role to interpreted the tectonic setup of particular mafic-ultramafic Complex, Ophiolites in Pakistan and Ranomena Ultramafic Complex NE, Madagascar. The Ophiolites and Mafic-Ultramafic complexes in Pakistan classified based on chromium number (Chromium No: >۶۰ Class I, Class-II ۱۵-۶۰ & <۶۰ III). The Chilas Complex i-e Chromite. No <۶۰ is related to rifting origin, the Sapat and Jijal Complex Chromite. No >۶۰ formed in Island Arc tectonic setting while others formed in Complex origin particularly Supra-Subduction Zone (SSZ) environment. The Mafic-Ultramafic Complexes of Pakistan has been correlated with Ranomena Ultramafic Complex North-East Madagascar and interpreted that the Bela, Muslimbagh-Zhobe, Waziristan, Dargai and Shangla-Mingora Ophiolites NW, Pakistan and Ranomena Ultramafic Complex NE, Madagascar originated at Supra Subduction Zone tectonic setting.

کلمات کلیدی:

Petrogenetic Importance; tectonic Setting; Chromite; Ophiolites; Mafic-Ultramafic Complexes; Supra Subduction Zone (SSZ); Ranomena Complex