

عنوان مقاله:

Application of Hamedan's andalusite for the manufacturing of cordierite-mullite refractory materials

محل انتشار:

دوفصلنامه زمین شناسی ژئوتکنیک، دوره 3، شماره 2 (سال: 1386)

تعداد صفحات اصل مقاله: 6

نویسندگان:

Seyad Hossein Badiie - Faculty of Engineering, Islamic Azad University - Maybod Branch, Maybod, Iran

Sasan Otraj - Faculty of Engineering, Shahrekord University, Shahrekord, Iran

خلاصه مقاله:

In this research, andalusite of Hamedan and other Iranian raw materials such as talc, kaolin, calcined alumina and magnesium oxide have been used for manufacturing of cordierite-mullite refractory materials. Different formulations were considered according to the chemical composition of raw materials. Then, raw materials were mixed, uniaxially pressed and after drying fired at different temperatures. Phase analysis (by XRD) and thermal expansion coefficient of fired samples were investigated. The results showed that Hamedan's andalusite can be used for the manufacturing of cordierite-mullite refractory materials. The optimum firing temperature range for cordierite and mullite phase formation is $1300-1350^{\circ}\text{C}$ for 10 hrs

کلمات کلیدی:

Cordierite, Mullite, Andalusite, Phase analysis, Thermal expansion

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1320577>

