Studi distribusi ukuran partikel MgO hasil ekstraksi Dolomit dengan menggunakan Surfaktan

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Abstrak

Sebelumnya telah diuji analisis pembentukan MgO melalui proses hidrasi dan karbonisasi dari mineral dolomit yang meliputi identifikasi fasa pada sampeldolomit murni pasca kalsinasi, hidromagnesit, serta MgO. Hasil identifikasi dari puncak-puncak difrasi sinar X memperlihatkan bahwa dolomit [CaMg(CO3)2] akanterdekomposisi menjadi CaCo dan MgO setelah dilakukan proses kalsinasi pada T = 750 oC. dengan waktu pemanasan 1 jam dan mulai stabil sebagai fasa.
<hr>Analysis of forming MgO through hydration and carbonization process have been studied before, including phase identification of pure dolomite, dolomite after calcination, hydromagnesite, and also MgO. The result from XRD patterns show that a dolomite [CaMg(CO3)2] will be decomposed to be CaCO3 and MgO in calcination temperature of 7500 C and it’ll stable to be MgO and CaO in 8000 C. After that, a hydration and carbonization process takes place to a dolomite which have been CaCO3 and MgO, with a sample and a water comparison is about 1 : 60, and + 1 hour of carbonization process. An additon of surfactant in a precipitation process is needed to get the big Hydromagnesite particles. The volume of sample used in this process is about 3 l, with a concentration of surfactant is about 1,2 M and 4 M. A hydromagnesite after this process will be heated in 7000 C and hopefully to get a big MgO particle with a high perity.