

Pengaruh Temperatur Pelindian Menggunakan KOH dan Pengendapan Pada Ekstraksi Campuran Senyawa LiOH-Al₂O₃-SiO₂ = Effect of Leaching Temperature Using KOH and Precipitation on Extraction of LiOH-Al₂O₃-SiO₂ Mixture

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Abstrak

Pada penelitian ini, campuran senyawa LiOH, Al₂O₃, dan SiO₂ telah berhasil dipreparasi melalui dua tahapan proses, yaitu pencampuran selama dua puluh jam dan pembakaran pada temperatur 12000C. Kemudian campuran tersebut diekstraksi melalui proses pelindian menggunakan larutan KOH dan dilanjutkan dengan proses pengendapan menggunakan larutan hangat Na₂CO₃ dan aliran gas CO₂. Pada proses pelindian didapatkan larutan LiOH dimana recovery Li yang didapatkan berbanding lurus dengan variabel temperatur yang digunakan. Hasil optimum proses pelindian didapatkan pada variabel temperatur 2000C dengan nilai recovery Li sebesar 7.13%. Telah dibuktikan pula bahwa pada proses pengendapan recovery Li didalam endapan meningkat seiring dengan meningkatnya rasio Na : Li yang digunakan.

.....In this work, the mixture of LiOH , Al₂O₃, and SiO₂ was succesfully prepared by two step, that is mixing about twenty hour and roasting at temperature 12000C. Afterwards, the mixture was extracted by leaching process using KOH solution and then continued by precipitation process using Na₂CO₃ warm solution and CO₂ stream. In the process of leaching, LiOH solution was obtained where recovery of Li which obtained equal with variable of leaching temperature. The optimum yield of leaching process was obtained at temperature 2000C with % recovery 7,13%. It was also proven that's on precipitation process, Li recovery in precipitate increase as well as increasing of Na : Li ratio.