



VIRTUAL SEMINAR

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Effect of Sodium Hydroxide on phase transformation of Gamma-alumina

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Alumina is the most advanced ceramic material that is highly available, and γ -alumina is the most common alumina phase. To obtain high-density ceramic, γ -alumina undergoes several polymorphic transformations. This phase consists of the transition phase of alumina, θ -alumina, which occurs in a specific order before converting to α -alumina. Some studies suggest utilizing dopants to enhance this phase transformation. Although significant progress has been made so far in considering the effect of Na on the properties of alumina, its influence on gamma-alumina is still incomplete.

This work aims to investigate the effects of the relative amounts of Sodium hydroxide (NaOH) on the phase transformation of gamma-alumina. The transition behavior and the microstructure of the samples have been investigated. The results show that the ratio of NaOH affects the transition behavior of gamma-alumina. Moreover, results are compared with adding ammonium hydroxide to gamma-alumina.

Kindly invited.