

From the Editor

Mineral and coal are two assets that can be used for developing the country. Indonesia retains both deposits. Mining and processing such deposits has been conducted for many years in this country. However, it needs a requirement to improve those deposits in terms of having the maximum benefit of such assets. Prioritizing a good mining practice is a standard to determine the prosperity of one nation. It is a new important paradigm in a mining project.

Several studies dealing with mining practice have been conducted by the researchers of *tekMIRA* and other related institutions. Synthesizing and characterizing the gamma alumina is one of the efforts to get the simulated alumina from a laterite deposit. The aim of this study is to examine the synthesis and characterization of gamma alumina and its adsorption capability for magnesium. Evaluating the potential application of bentonite as an additive reagent to increase the flexibility and pressure strength of ceramics and studying the kinetic aspect of iron dissolution in leaching process are two studies related to the use of both materials for industries. A study of the geo-mechanical aspect of limestone deposits relates to the safety of the buildings available at that area and the study of the kinetic aspect of iron dissolution in leaching process is an effort to lessen the high energy consumption when processing such the mineral.

Coal is one of the fossil fuels that develops from organic matter, notably from the remaining plants that experience coalification. The main elements are carbon, hydrogen and oxygen. The turning point of coal's role as the alternative energy source is based on the government policy in 1976 as stated in the Ministerial Decree of the Energy and Mineral Resources no. 0983 K/116/MEM/2004. Yet Indonesian coal retains high ash content. Such a material causes fouling and slagging within the reactor. It needs an effort to lessen such a problem. Meanwhile, the energy needs in Indonesia are going to increase while the production of oil and gas is declining. This problem can be minimized by developing an alternative energy such as underground coal gasification (UCG) by utilizing a deep-seated coal at 200 to 1,000 m below surface. Indonesia tries to evaluate coal characteristics in basins for UCG purpose which refers to several coal properties parameters. This is mentioned in the paper related to the plan for developing the UCG.

Editor in Chief