

From the Editor

This current journal is emphasizing in industrial minerals and coal technology. The industrial minerals are interesting to present because their existence is not attractive for mining investors due to their poor quality. However, they are abundant in quantity. They are easily found and well observed in all parts of this country. Ironically, these minerals have been imported until now, particularly from China and India. For this reason, Indonesia has already issued the new law on mineral and coal mining (Law Number 4/2009), which is accommodative for the mining business. For instance, the government has tried to construct infrastructure to access the locality of the minerals. The most important thing is that prior to exporting, the minerals must be processed to be good commodities and not as raw materials in order to improve its technology and national revenue. Coal in Indonesia, especially from Kalimantan and Sumatera, is huge in the quantity. Its potential becomes a major future primary energy source due to its quality and quantity that is prospectively utilized in the future. However, most of the coals have low ranks. That is why this low rank coals should be evaluated to select the appropriated utilization technologies.

Policy on industrial mineral resource management is presented as the main topic of this journal. This policy is issued in the framework of eliminating dependence on import. The import rate is stagnantly high, and it is caused by factors of unwise policy and interest conflict from the stakeholders. The issuance of Law Number 4/2009 on mineral and coal mining is expected to be the critical moment for reforming the policy and related regulations.

An alternative method on the activation process for bentonite mineral was carried out in the research. Biodiesel manufacture commonly apply liquid catalyst that deal with obstacles, like difficulty in catalyst separation with the product as they are in same phase of liquid, the catalyst can cause corrosive, excessive catalyst cannot be reused and complicated to be handled. An alternative choice for better process would be using solid catalyst as a heterogeneous system with raw material and product. Bentonite has a potential to be used as solid acid catalyst. The applied method indicated that a significant molar ratio was reached by settlement for 2 weeks that can serve as alternative energy saving method.

Most of metakaolin is used in Portland cement industries as an additive to improve the compressive strength of the cement. The Bangka kaolin was more suitable in metakaolin preparation, because its initial Al_2O_3 content rises after decantation. This commodity is globally marketed by Asian Ceratec Corporation in the metakaolin product (38% of Al_2O_3).

The coal seams in the South Sumatera Basin are considerably thick and continuous, low ash and sulphur contents and could be found at favourable depth. These coals can be exploited by traditional mining methods that are open cut and underground mining. If the coals are not economic to exploit using those methods, underground coal gasification technology could be implemented to optimize the use of coal and associated gaseous fuels in the basin. The coals could be utilized for direct combustion in mine site in order to reduce transport cost. They also could be upgraded to obtain high calorific value or converted to gas, liquid and coke fuels through gasification, liquefaction and carbonization technologies.

A carbonate complex in East Kalimantan was selected for the study, because this area has some coal deposits. In general, most Indonesian coals were deposited in fluvial and deltaic environments. Thus, the study is interesting due to depositional environment of the coals in related to a marine condition. The geologic factors have clearly proven a good correlation among the results of megascopic, microscopic and proximate analyses. The presence of high pyrite and sulphur contents strongly illustrates a marine incursion during the coal deposition in the area.

From all the above papers, it is really expected that the Law Number 4/2009 on mineral and coal mining would accommodate the supply-demand aspect of the mineral and coal commodities. The applied technologies for mineral and coal should be improved to obtain value added of the commodities. Moreover, it is also hoped that this opportunity could be a golden bridge between R&D centre (supply side) and industries (demand side) that could synergized the supply-demand on these commodities.

The Editor