

Techno-economic study of phosphoric acid plant using hydroxyapatite as a raw material

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Phosphoric acid plant using hydroxyapatite as a raw material is more eco-friendly than that using apatite as a raw material. In this study, the process of phosphoric acid plant using hydroxyapatite was simulated using ASPEN Plus. The phosphoric acid process reactions were assumed to be at steady-state and physical properties, mass balance and energy balance were also considered. The optimal phosphoric acid yield was investigated by sensitivity analysis. Economic analysis was carried out to compare the other phosphoric acid plant using apatite as a raw material.