

## The study of solidification technology for utilization of sewage sludge as landfill cover soil by variable mixtures

한동윤\*, 유광석, 안지환  
한국지질자원연구원  
(handy96@hanmail.net\*)

Sewage sludge has high water content (about 85 wt%) and contains about 10 wt% organic content from disposal process of sewage water. Especially the organic matter is disjointed and the offensive odor occurs. Because of these reason, the re-use is very difficult with the agriculture soil. This study investigates the changing of water and organic content in sewage sludge by using of variable mixtures. Basic properties tests including pH-meter, XRD, TGA, SEM and ICP were performed. The materials used in this test were the mixture of sewage sludge, calcium oxide, magnesium chloride, aluminum sulfate and waterworks sludge at 600 degree C treated. Our results indicate that the stabilized and solidified sewage sludge materials may provide an alternative landfill cover material that has very great properties environmentally.