

Effect of Carbide on Adsorption of Dissolved Organic Matter Contained in Under Drainage of Reclaimed Land

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The object of this study was to examine the effect of carbide on adsorption of dissolved organic matter contained in under drainage of reclaimed land. From the batch test, the carbide adsorbed the dissolved organic matter quickly, and then reached the equilibrium state in a few hours. On the other hand, the adsorption effect could not be observed in the chaff and sand, which are generally used as a filter material for under drain. These results described above suggest that we couldn't get much effect of the under drain constructed generally on removing dissolved organic matter discharged from the under drain of the reclaimed land. Concentration of the total organic carbon in the under drainage of reclaimed land was 10.1 mg/L on average, and dissolved organic matter comprised 97% of the total. Application of the carbide which has a strong effect on the adsorption to purifying materials is considered to be an effective measure for water conservation.

Keywords: batch test, total organic carbon, water conservation measure