A Study on the Utilization of Fiber-Type Biosorbiotics Using Waste Matter

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The study began by thinking that the blood of smokers would be effective in attracting heavy-metals after seeing a paper stating that heavy-metals were detected more than non-smokers. The authors ha ve designed fibrous biosorbents to overcome the limitations of adsorbents. The lyophilized blood alone showed high adsorption of heavy-metals. The possibility of heavy metal a dsorbent using blood waste was confirmed. The authors made fibrous biosorbent with lyophilisated de fibrinated horse blood and tested the adsorption capacity for heavy-metal solution. In result, overall a dsorption capacity of fibrous biosorbent which made with lyophilisated defibrinated horse blood was e xcellent than orignal fibrous biosorbent. Chlorophyll's porphyrin structure was similar to that of hemoglobin in red blood cells, so the authors thought it would be nice to create a fibrous biosorbent using chlorophyll from ecosystem disturbance s. Other investigations have shown that the chlorophyll-plated magnesium drops Mg in porphyrin-stru ctured, and the chlorophyll solution which added electric was more capable of adsorbing heavy-metal s. In addition, the adsorption capacity of heavy-metals was better in the fibrous biosorbent prepared f rom the chlorophyll solution which added electric. Furthermore, Chitosan, which used as a support wa s found to be so expensive, so authors challenged to find new inexpensive support with different visc osity.

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