Optimization of Extraction Process of Polysaccharides from *Hizikia fusiformis* using Response Surface Methodology

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Response surface methodology (RSM) was applied to optimize the extraction of polysaccharides from Hizikia fusiformis. A Box-Behnken design was used for analysis of the results to obtain the optimal extraction conditions. Extraction time, ratio of solid to liquid and extraction temperature were found to have a significant influence on the yield and purity of the extracted crude polysaccharides. The experimental data obtained were fitted to a second-order polynomial equation using multiple regression analysis and also analyzed by appropriate statistical methods. Based on the RSM analysis, optimum conditions were found, and the experimental values were in close agreement with values predicted by the model.