

Abstract

Oxidation plays the important role in diseases And reduces quality of fats and oil in food products during processing and storage. The fish processing industry produces more than 60% by-products as waste, which includes skin, head, viscera, liver, and These by-product wastes contain good amount of protein rich material that are normally processed into low market-value products, such as animal feed, fish meal and fertilizer. But we can use from this wast to Products with higher added value such as fish protein hydrolysate white Functional peroperties and ontioxidant activity. in this study *Schizothorax zarudnyi* wastes were hydrolyzed by pepsin proteases. DPPH radical scavenging power was used to evaluate antioxidative activity of hydrolysates. *One variable at a time* and response surface methodology (RSM) were employed to optimize hydrolysis conditions, including enzyme concentration, substrate concentration, reaction temperature, and hydrolysis time. Central composition rotetable design (CCRD) was used for this study. The optimum conditions obtained in RSM were as follows: enzyme concentration of 3%, substrate concentration of 39.89%, temperature of 35.17 °C and time of 38.6 hours, under which, DPPH radical scavenging activity of 61.85% was found.

Key words : *Schizothorax zarudnyi*, Protein hydrolysate, Antioxidant activity, Response surface methodology