

Title:

Effect of Different Solubilization pH Values on the Functional Properties of Protein *Spirulina platensis* Isolated Through Acidic Precipitation

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Abstract:

The present study aims to characterize the functional properties of *Spirulina* protein isolate (SpPI) recovered at different solubilization pHs of 4, 7, 10, and 13. Results showed that the highest precipitation occurred at pH 7, producing emulsion with the highest aging and heat stabilities (77% and 56%, respectively). Moreover, it exhibits amphiphilic properties, with better oil and water absorption capacities. It also formed a reduced creaming behavior and significant foaming stability. These findings indicate that *Spirulina* protein isolate solubilized at pH 7 may be a versatile and dynamic potential emulsifier for use in food.