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**Long-Term Preservation of Marine Products via Conformational Change of Protein by Electrostatic Effect**  
KOICHI TAKAKI, Iwate University

Conformational change of Bovine Serum Albumin (BSA) by AC electric field was studied experimentally for long-term preservation of marine products. The AC voltage was generated with a transformer that had an amplitude of 10 kV and a frequency of 50 Hz. High AC voltage was applied to a metal shelf located in an incubator. The experimental results suggested that the conformation of protein changed from  $\alpha$ -helix to  $\beta$ -sheet by applying AC voltage during the preservation. The denaturation of the protein with the temperature change was suppressed by the AC voltage treatment. The AC electric field was also applied during freezing to improve the freshness. Both sample groups were cryopreserved and placed in each incubator at  $-10$  °C for 20 days. The freshness was estimated by the amount of the proteins with the molecular weight of less than 70,000 included in the drip which eluted from samples called SDS polyacrylamide gel electrophoresis. It was found that the amount of the protein with the molecular weight of less than 70,000 decreased by applying the AC high voltage. The degeneration in proteins was inhibited by the effect of the AC high voltage. This experimental results showed that the use of AC voltage during freezing is effective for preserving the freshness of the perishable foods.

In collaboration with Takanori Ito, Takamasa Okumura, Katsuyuki Takahashi, Sumio Aisawa, Shigeyoshi Yamazaki, and Bunei Syuto, Iwate University.