

## Study on Permeating Process of Salt into Fish Meat and Animal Meat by MRI

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### Summary

An evaluation method on permeation process of salt into fish meat and animal meat by MRI measurement was studied. MRI measurements were carried out for the fish body rubbed with salt powder with various echo times to calculate  $^1\text{H } T_2$  NMR relaxation time to construct  $^1\text{H } T_2$  map of the fish body. A relationship between  $^1\text{H } T_2$  and salt concentration in the fish body were obtained by the measurements on the fish meat with various salt concentrations, which was used to convert the  $^1\text{H } T_2$  map to the salt distribution in the fish body. The results showed that the salt concentration of the whole fish body became more uniform earlier by the method of taking out the internal organs and rubbing the salt into the fish body from the abdominal cavity than the rubbing only from the outside of body. Simulations of the salt permeation into the fish body were carried out to give supporting data for the salt distribution obtained by MRI method..