

0506

## Study for Effect of a Higher-order Field on Ionic Transport across a Membrane (III)

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### Summary

The higher-order field for membrane transport is considered as the field which is not concerning with the driving force in the membrane transport such as concentration, hydraulic pressure or electric field. The following cases are considered to be higher-order fields.

- 1) Electric field parallel to the amphoteric membrane surface
- 2) Electromagnetic field
- 3) Ultrasonic wave
- 4) Low-frequency wave
- 5) Laser
- 6) Jet flow
- 7) Reaction field by micro-organism

In this research, the effect of low frequency wave was examined. Mixed electrolytes of permeation are sodium chloride and chlorination potassium. The permeation of the electrolyte is tested by using commercial ion exchange membrane under the vibration of this moment. It was evidenced that an influence on surface side of a membrane clear and vibration of low frequency wave to solvent (water) was observed.