

5 Conclusion

The fundamental characteristics of axons are first analyzed in this paper.

It is clarified that signal transmission (phase) velocity in axon depends on inductance L and capacitance C of axon which are defined by myelination and cross-sectional dimension of axon.

It is also clarified that wideband signal and long distance transmission are realized by myelination, and large cross-sectional dimension (thick) of axons

It is also presented that increase of conduction of the axon is brought by injection of positive ions through ion channels distributed at unmyelinated part of axon.

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