



Structural Analysis of Biomaterials

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● Research Outline

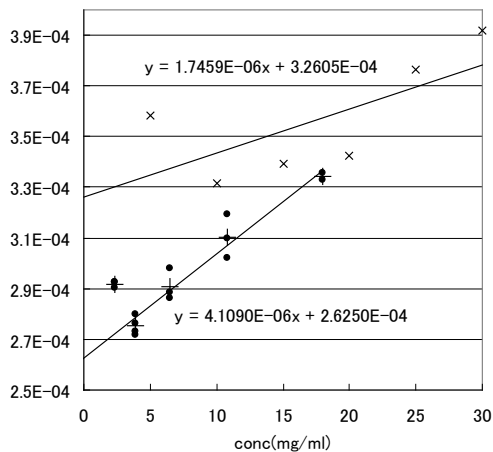
Secondary Structure of Oligopeptides

I have been analyzing the secondary structure and the associative structure of oligopeptides using infrared absorption spectra and light scattering method.

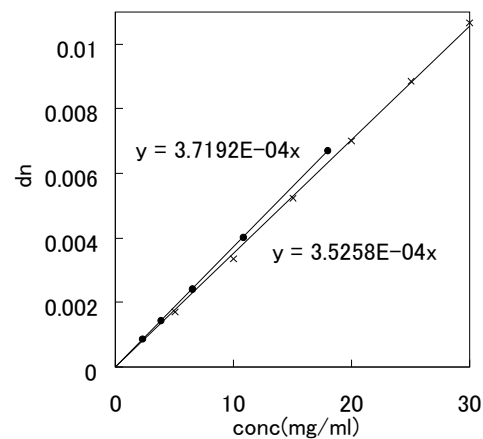
This research will give one important knowledge about the functional expression mechanism based on the higher order structure of proteins.

Oligopeptides of L-glutamic acid which exists in nerve cells as neurotransmitter, have been chosen as the model molecules. The change of those conformation is analyzed.

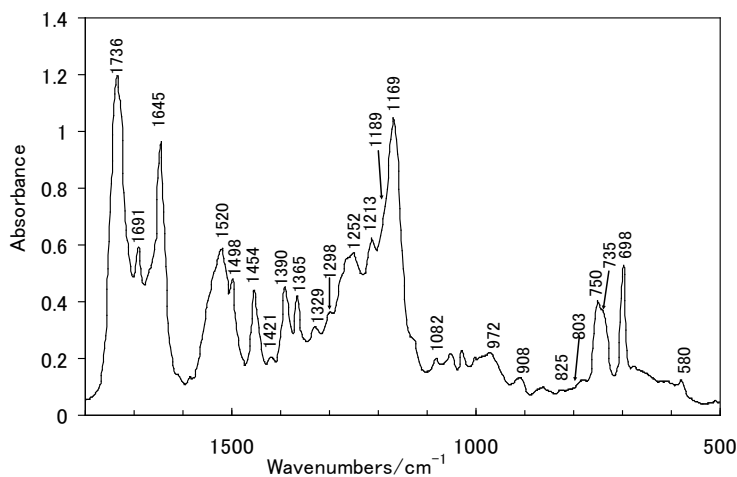
As a result, it became clear that the secondary structure of L-glutamic acid oligopeptides is a structure similar to the polypeptides.



Debye plot of L-glutamic acid oligomer



Measurement of dn/dc by differential refractometer



IR spectrum of L-glutamic acid oligomer