

## MA-5

### Periodicity in Chemical Shifts and Temperature Coefficients of $\alpha$ -helix in TFE Solution

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Local conformation of helical peptides in TFE solution are studied by NMR spectroscopy. One is a helix containing proline and the other is its alanine derivative in which alanine is substituted for the proline. Chemical shift and temperature coefficient in NMR spectroscopy can be used preliminarily to determine secondary structure in proteins and peptides. The periodicity in chemical shift of amide protons indicates that both the helices are curved. The temperature coefficient, however, showed opposite periodicity compared to that of chemical shift. Other factors more than solvent interaction affect temperature coefficient in TFE solution and should be considered in the interpretation.