This study reports on a theoretical calculation of Hahn’s spin-echo experiment in case of a model $A_2B_2$ spin system with a strongly coupling character and gives the experimental results of one-dimension $^1$H high-resolution NMR spectra of taurine and aspartate. The calculated amplitudes of the spin-echoes for two different proton groups of taurine are given. Using results of our calculations for taurine, the computer simulations of $J$-modulation are implemented. It is shown that the agreement between the experimental and simulated spectra is good.

Key words: NMR; Amino Acids; $A_2B_2$ System; $J$-modulation.