

In the presented bachelor thesis the structure of LaCuAl_3 was studied on a series of metallic powder samples $\text{LaCu}_x\text{Al}_{4-x}$, $x = 0,75; 0,9; 1$ and $1,1$ especially with respect to the local symmetry of La atoms. ^{63}Cu , ^{65}Cu , ^{27}Al and ^{139}La nuclear magnetic resonance spectra were measured at room temperature in external magnetic field of 9,4 T. Some of the measured spectra were compared with simulated ones in order to access the number of nonequivalent atoms in the structure. Furthermore, the effect of Al/Cu stoichiometry on nuclear magnetic resonance spectra was observed and discussed.