^{1}H and ^{13}C NMR Spectral Studies on *N*-(*j*,*k*-Dichlorophenyl)- and *N*-(*j*,*k*-Dimethylphenyl)-acetamides and Substituted Acetamides

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70 *N*-(*j*,*k*-Dichlorophenyl / *j*,*k*-dimethylphenyl)-acetamides and substituted acetamides of the general formula *j*,*k*-$X'_2C_6H_3NH$-CO-$CH_{3-i}X_i$ (*j*,*k* = 2,3; 2,4; 2,5; 3,4 or 3,5; X, X′ = Cl or CH_3; *i* = 0, 1, 2 or 3) have been synthesized and their ^{1}H and ^{13}C NMR spectra in solution were studied. The influence of Cl and methyl substitution in the side chain as well as in the aryl group was systematically investigated and discussed in detail. Chemical shifts of all aromatic protons and carbon atoms were computed by adding the substituent contributions in three different ways to those of the unsubstituted molecules. The agreement with the experimental values is discussed in detail for the three different methods of calculation.

Key words: ^{1}H/^{13}C NMR; *N*-(Dichlorophenyl/Dimethylphenyl)-acetamides/Substituted Acetamides.