

11 Summary

To conclude, I hereby state that all goals as set for this thesis were fulfilled.

Firstly, the analysis of currently valid curricular documents was performed as well as the analysis of selected comprehensive school textbooks dealing with the topic of saccharides. The analysis results conclude that the best textbooks from the didactic point of view are *Chemistry 2 (Organic chemistry and Biochemistry) for Grammar Schools* (authors: Kolář, Kodíček, Pospíšil) and *Chemistry for Comprehensive Schools* (authors: Banýr, Beneš et al.).

Further, the pre-test focused on saccharides subject matter was made up and subsequently verified in secondary schools. The results of statistical analysis show that students have a good knowledge concerning function and occurrence of saccharides but an insufficient knowledge in the field of saccharides reduction properties and of aldoses and ketoses derivation.

On the basis of the statistical analysis of the pre-test, the educational text about saccharides was written up. The text is primarily designed for secondary school teachers and served as a basis for creation of worksheet and a training programme.

The worksheet is focused on practicing the subject matter in the form of crossword puzzles, fill-in exercises and critical reading exercises.

The training programme is fully interactive and consists of three explanatory presentations, three educational films about chemical experiments, didactic game and automatically evaluating test. The training programme was created in Macromedia Flash 8.0.

The guideline that eases the work with the training programme was also prepared. This guideline is designed for secondary school teachers of chemistry.