

The particularities of chemistry teaching in Luxembourg

Embedded between France, Germany and Belgium, Luxembourg has a strong culture for teaching foreign languages. The students are intensively taught French, German and English at school.

Due to this intense learning of foreign languages, the curricula do not leave enough time for teaching Sciences.

Students in Luxembourg are taught Sciences only during 3.3 years at an average of 3 lessons a week. Compared to our neighbour countries, this is far not enough ^[1]. Furthermore, our students are taught Sciences at an age of 16 to 19 years. This is too late, considering that the psychological age for discovering Sciences is at the age of about 12 years.

We have decided to develop and publish our own Chemistry books ^[2], as the German, French or Belgian books do not fit to our programs and the age of our students.

These books are accompanied by (N)TIC: interactive CD-ROM and DVDs ^[3].

The interactive CD-ROMs contain additional exercises for training the stuff seen in class (i.e. chemical formulas, equations, stoichiometry). The DVDs contain film movies of the experiments presented in the books. So every student has the possibility to watch again the experiments at home and do some more training on the material he has to learn.

Movie downloads and exercises at <http://www.al.lu/chemistry/> (site in French)

Flash animations at <http://www.ltam.lu/chimie/home.htm> (site in German)

Animations, simulations, exercises at <http://www.restena.lu/lhce/Chimie/index.html> (site in German and French)

Animations, documents, exercises at <http://www.lgl.lu/LGL/Departements/chimie> (site in French)

^[1] WAGENER, G., *Vergleichende Studie zum Chemie-Unterricht im Grossherzogtum Luxemburg und seinen Nachbarländer Belgien, Deutschland und Frankreich*, travail de candidature, Luxembourg, 2002.

^[2] GERARD, E., *Chimie Organique - classes de 1^{er} B et C*, MENFP, Luxembourg, ED/ES/276.
GERARD, E., *Les acides et les bases – classes de 1^{er} B et C*, MENFP, Luxembourg, ED/ES/278.
GERARD, E., *Chimie – classes de 2^e B et C*, MENFP, Luxembourg, ED/ES/290.
OCHEM, S., GERARD, E., *Chimie générale et minérale*, MENFP, Luxembourg, ED/ES/304.
FREYMANN, M., GERARD, E., *Introduction à la chimie organique – classes de 3^e B, C et E*, MENFP, Luxembourg, ED/ES/303.

^[3] PACELLA, P., *Elaboration d'un accompagnement audio-visuel pour le cours de chimie organique en classes de 1^{er} B et C*, travail de candidature, Luxembourg, 2003.