UCL Université catholique de Louvain

LCHM2152

2015-2016

NMR Complements

3.0 credits	22.5 h + 7.5 h	1q

Teacher(s) :	Luhmer Michel ;
Language :	Anglais
Place of the course	Louvain-la-Neuve
Main themes :	1. Principles and calculations of NMR spectra; 2. 1D NMR pulse sequences (SEFT, APT, INEPT, DEPT); 3. 2D NMR: a) through bond homonuclear (COSY) and heteronuclear correlations; b) through space correlations (NOE, NOESY, ROESY); 4. 1H & 13C NMR spectroscopy; 5. NMR spectroscopy of other nuclei (19F, 15N, 31P); 6. Solid state NMR spectroscopy.
Aims :	This course aims at enlarging and deepening the basic notions in NMR so that students should be able to collect and interpret spectra of various complexities. *The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".*
Content :	1. Introduction and generalities; 2. NMR spectroscopy practical aspects; 3. 1D NMR experiments; 4. 2D NMR experiments: through bond homonuclear and heteronuclear correlations, and through space correlations; 5. Solid state NMR; 6. Theoretical aspects and applications will be connected with practical questions related to the use of a NMR spectrometer and data acquisition.
Other infos :	Background: Basic notions in molecular spectroscopy (CHM1251B). Evaluation: written and oral exams. Documents: complicated schemes (syllabus) may be given along with some textbook references; The course could be partly or totally delivered by an invited lecturer. Other
Faculty or entity in charge:	CHIM

Programmes / formations proposant cette unité d'enseignement (UE)				
Intitulé du programme	Sigle	Credits	Prerequis	Acquis d'apprentissage
Master [120] in Chemistry	CHIM2M	3	-	🔍
Master [60] in Chemistry	CHIM2M1	3	-	🔍