



“X-ray Powder Diffraction: fundamentals and applications in Materials Science”

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Course contents:

The course will start with basic recall of crystallography and X-ray diffraction. Then fundamentals of X-ray powder diffraction (XRPD) will be described in details. The applications of XRPD to qualitative and quantitative analysis, crystallite size analysis and texture evaluation will be introduced. Finally application to materials science will describe, also with examples. Non-ambient conditions experiments and use of synchrotron radiation sources will be introduced.

Syllabus of the lecture:

1. Fundamentals of crystallography and X-ray diffraction.
2. X-ray powder diffraction (XRPD)
3. XRPD for qualitative and quantitative analysis
4. XRPD for crystallite size analysis and texture evaluation
5. Application of crystallography to materials science and non-ambient conditions experiments, using synchrotron radiation

TERMINY WYKŁADÓW			
Data	Dzień tygodnia	Godzina	Sala
2015-01-12	poniedziałek	13-16	Luwr (Chemia A)
2015-01-13	wtorek	13-16	Luwr (Chemia A)
2015-01-14	środa	13-16	Luwr (Chemia A)
2015-01-15	czwartek	15-18	27 (Chemia A)
2015-01-16	piątek	13-16	Luwr (Chemia A)