



"Nanocomposites and bionanocomposites"

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Course contents:

During the lectures (15h) polymer nanocomposites and bio-based nanocomposites will be discussed in details in order showed below.

Syllabus of the lecture:

LECTURE 1. INTRODUCTION

- Composite Materials
- From the Micro to Nanoscale
- Why the nanoscale?

LECTURE 2. CLAY/POLYMER NANOCOMPOSITES

- Why nanoclay?
- Functionalization and characterization
- Nanocomposites preparation
- Final properties of nanocomposites
- Applications

LECTURE 3. CARBON NANOSTRUCTURES/POLYMER NANOCOMPOSITES

- Carbon nanostructures and properties
- Chemical and physical functionalization
- Nanocomposites preparation, final properties and applications

LECTURE 4. CELLULOSE NANOFIBRES AND NANOCRYSTALS/POLYMER NANOCOMPOSITES

- Isolation of cellulose nanofibres and nanocrystals and other nanoentities
- Chemical and physical functionalization
- Nanocomposites preparation, final properties and applications

LECTURE 5. BIONANOCOMPOSITES AS MIMICS LIVING SYSTEMS



TERMINY WYKŁADÓW			
Data	Dzień tygodnia	Godzina	Sala
2015-01-19	poniedziałek	9-12	LUWR (Chemia A)
2015-01-20	wtorek	9-12	LUWR (Chemia A)
2015-01-21	środa	9-12	LUWR (Chemia A)
2015-01-22	czwartek	9-12	LUWR (Chemia A)
2015-01-24	Piątek	9-12	LUWR (Chemia A)