



SC

CHIM2262 Chimie macromoléculaire II

[22.5h] 2.5 credits

Teacher(s): Jean-François Gohy
Language: french
Level: 2nd cycle course

Main themes

Chapter 6 : Ionic polymerisation: - anionic polymerisation of vinyl monomers - polymerisation thermodynamics - cationic polymerisation of vinyl monomers - ionic polymerisation of cyclic monomers ; polymerisation by group transfer. Chapter 7 : polymerisation by transition metal complexes: - introduction - olefin and 1-3 dienes polymerisation by catalysers of Ziegler and Natta - polymerisation of ethylene by the Phillips catalyser - polymerisation of cyclic olefins by metathesis - main polymers synthesized by transition metal complexes. Chapter 8 : Polycondensation : - characteristics of polycondensations - molecular masses and their distribution in linear polycondensation - balanced polycondensations - polycondensation kinetics - cycle formation - three-dimensional network formation, gel point - polycondensation techniques - copolycondensation - high performance polycondensation. Chapter 9 : Chemical modification of polymers: - main reactions on polymers - reactivity and mechanisms - kinetic - techniques and main applications. Chapter 10 : Polymer degradation: - depolymerisation - thermal decomposition - degradation : oxidizing, photo degradation, by ionic radiation, mechanic, biological.

Other credits in programs

CHIM22 Deuxième licence en sciences chimiques (2.5 credits)