

"KNOW - HOW 2 CONNECT IN BIODEGRADABLE POLYMERS"

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ABSTRACTS

"Tailoring of fine properties of biodegradable polymers by chemistry for biomedical applications", Dr. Philippe Lecomte, Research Associate by the Belgian "FNRS", CERM, ULg

The development of new applications based on biodegradable polymers such as aliphatic polyesters requires the tailoring of their fine properties. This objective is met by two different strategies: the synthesis and the polymerization of new functional monomers and the direct chemical modification of polymers under non degrading conditions. These polymers can be processed as fibers, gels, foams, particles. The technology based on supercritical carbon dioxide offers a unique opportunity for the environmental friendly synthesis, the purification and the processing of biodegradable polymers. Finally, the potential of these degradable polymers are assessed in the frame of biomedical applications, as implant or as vector for the controlled release of drugs.