

326d New Developments in Polymer Reaction Engineering

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In the last few decades the processes for producing polymers have been significantly improved and often profoundly modified using methodologies that are typical of chemical engineering. Although the innovative potential of this approach is certainly not exhausted, some new issues are emerging.

Processes with better compatibility with the environment are needed. Polymerization in supercritical carbon dioxide offers this characteristic in addition to an attractive polymer purity, but it needs a better understanding to be able to produce macromolecules with desired characteristics. Controlled polymerization, possibly coupled with self assembling systems, like amphiphilic polymers, offer the possibility of producing materials whose properties have still to be explored. These and a few other aspects are going to be discussed in this presentation.