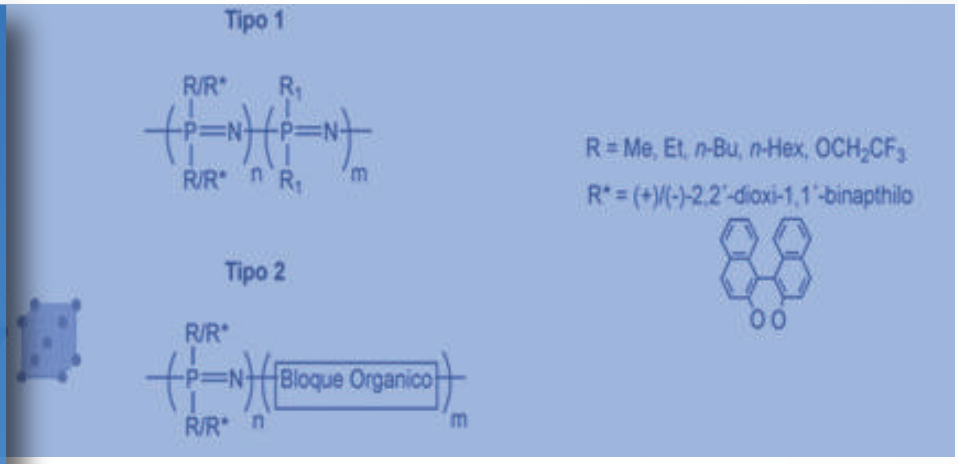
Synthesis and self-assembly of Polyphosphazene (PP) Block Copolymers. Design of new Inorganic Nanostructures derived from High Cristalline or/and Chiral High Tunable PP Block



PROJECT DETAILS

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Sub-Programme:
People
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Website:
http://cordis.europa.eu/projects/rcn/95031_en.html

PROJECT DESCRIPTION

An exciting new area would involve PP block copolymers. These materials would possess an inorganic PP coblock which is superficially reminiscent of Polysiloxane. However, the PP block is inherently much more tunable. A key advantage is that whereas siloxane blocks are intrinsically highly hydrophobic, phosphazene blocks can be easily derivative to allow them to become hydrophilic. This has the key advantage that self-assembly can be performed in water making processing and practical applications more realistic. This tenability of phosphazene blocks, will allow us to gain deep insight into the factors that facilitate self-assembly of block copolymers in solution and will also allow us to access stabilized nano-materials for example by introducing crosslinking groups. The introduction of high crystallinity and/or chirality in the PP block will allow us to generate novel and interesting nanostructures.

PROJECT PARTNERS

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