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SMART SOLUBLE GRAFTED POLYSILOXANES WITH POTENTIAL APPLICATIONS IN WATERBORNE PAINTS

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Abstract

The synthesis of some grafted polysiloxane and azo-polysiloxanes with potential applications as rheology modifiers or surfactants for waterborne paints is reported. Nowadays it became very important to design environmentally friendly systems exhibiting the best end-uses properties. Due to their complex architecture and their sensitivity to UV radiation the studied polymeric systems exhibit very interesting rheological properties. All the polymers containing the azobenzenic groups in the side chains are able to interact with the UV/VIS light, due to the photo-isomerization processes. Due to this property, the azo-based polymers are able to generate photo-stimuli response accomplished by strong supramolecular properties modifications.

Keywords: ATRP, rheology modifier, soluble polysiloxanes, sustainability, waterborne paints,

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