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LIGHT-INDUCED SYNTHESIS OF BLOCK AND GRAFT COPOLYMERS

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1. INTRODUCTION

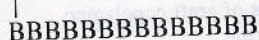
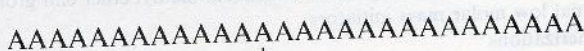
1.1. *On the importance of block and graft copolymerization*

In recent years, the synthesis of novel polymeric materials has become an attractive field of polymer science. Novel materials are required by engineers who are engaged in the development of "high tech" devices because no available materials have properties meeting their requirements. Generally, the need is for novel materials having specific combinations of physical properties.

Regarding polymeric materials, it has been attempted over many years to combine physical properties by copolymerizing monomers of different chemical nature. It was found that a desired combination of physical properties could often be achieved much more easily with "block" and "graft" copolymers of the general structures:

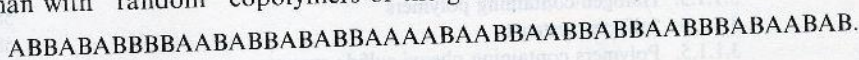


Block copolymer



Graft polymer

than with "random" copolymers of the general structure:



Random copolymer

At present, there are various polymeric products on the market basically consisting of random copolymers containing two or three different monomer units, generally denoted here by A, B or C. Novel polymeric materials may be synthesized from new monomers, i.e. from monomers differing in chemical nature from the "classical" ones. However, since "classical" monomers are in most