



ISTITUTO ITALIANO  
DI TECNOLOGIA

#### TITLE

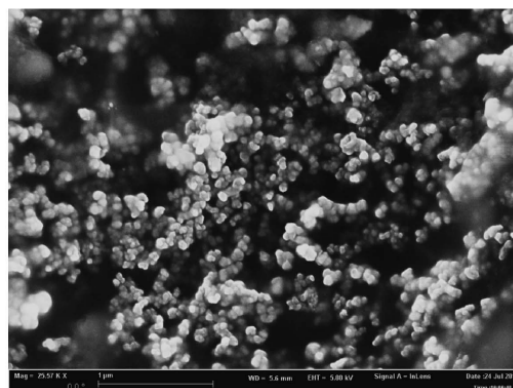
Biodegradable nanocarrier for drug delivery

#### INVENTORS

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#### DESCRIPTION

The invention relates to a block-made copolymer consisting of two blocks S1 and S2, where S1 is constituted by  $m(\text{PEG})_n$  where  $n$  is an integer between 4 and 50, and S2 is a random copolymer consisting of the monomeric units R1 and R2 where R1 is the monomer unit corresponding to the monomer  $\gamma$ -valerolattone and R2 the monomer unit corresponding to the monomer selected from the group consisting  $\epsilon$ -caprolattone,  $\delta$ -valerolattone,  $\beta$ -butirrolattone,  $\epsilon$ -caprolattame,  $\delta$ -valerolattame. Is also provided a method for its preparation, its use and a pharmaceutical composition comprising the same.



#### APPLICATIONS

Drug delivery, biodegradable nanocarriers

#### KEYWORDS

Methoxy(polyethyleneglycol)-b-poly( $\epsilon$ -caprolactone-rand- $\gamma$ -valerolactone) synthesis, lactone copolymerization, biodegradable nanocarriers, nanomedicine, controlled drug delivery systems, nanoparticles

#### BIBLIOGRAPHIC DATA

Copolimero E Nanoparticelle Da Esso Ottenute Per La Veicolazione Di Un Farmaco

Application Number	TO2013A000431
Priority Date	May 28, 2013
Applicants	Fondazione Istituto Italiano di Tecnologia

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