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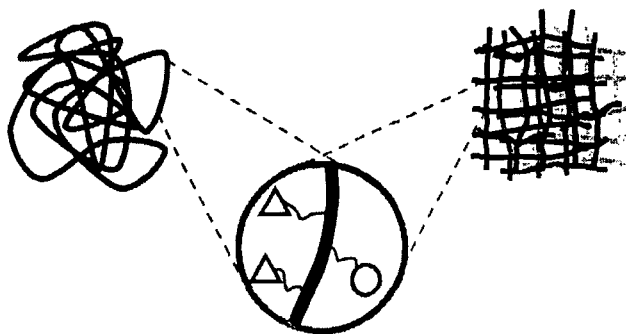
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(54) Title: BIOFUNCTIONAL FIBERS

Nonwoven

Knitted



△ ○ Cell adhesion ligands

(57) Abstract: The present invention is directed to surface functionalization of polymeric fibers. Surface biofunctionalization is achieved by covalent conjugation of biofunctional ligands and/or cell growth factors that are crucial for cell attachment, proliferation and functions. Biofunctional fibers could be fabricated into three-dimensional scaffolds. Polymer fibers described here comprise of biocompatible polymers that are either biodegradable or non-biodegradable. This patent also describes a series of new biodegradable polyphosphoramidates for the processing of biodegradable fibers. Scaffolds made of non-biodegradable functional fibers could be used for *in vitro* cell culture (for example, *ex vivo* cell expansion), while biodegradable functional fibers could be fabricated into tissue engineering scaffolds.



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