



Biomimetic materials

By Frederic P. Miller

Alphascript Publishing. Taschenbuch. Condition: Neu. Neuware - Biomimetic materials are materials developed using inspiration from nature. This may be useful in the design of composite materials, or material structures. Natural structures have evolved many inspiring examples that have been used by man. Common examples are the honeycombe structure of the beehive, the fibre structure of wood, spider silks, nacre, bone, hedgehoq quills. Biomimetic materials in tissue engineering are materials that have been designed such that they elicit specified cellular responses mediated by interactions with scaffold-tethered peptides from extracellular matrix proteins; essentially, the incorporation of cell-binding peptides into biomaterials via chemical or physical modification. Such peptides include both native long chains of ECM proteins as well as short peptide sequences derived from intact ECM proteins. The idea is that the biomimetic material will mimic some of the roles that an extracellular matrix plays in neural tissue. In addition to promoting cellular growth and mobilization, the incorporated peptides could also mediate material degradation by specific protease enzymes or initiate cellular responses not present in a local native tissue. 100 pp. Englisch.



READ ONLINE
[5.68 MB]

Reviews

Thorough manual for ebook fans. it had been writtern quite properly and valuable. It is extremely difficult to leave it before concluding, once you begin to read the book.

-- Dr. Catherine Wehner

Absolutely among the best book I have possibly go through. I have go through and that i am certain that i am going to gonna read through once again again in the future. I am just delighted to tell you that this is basically the finest book i have got go through within my personal existence and could be he finest book for ever.

-- Brian Bauch