

论文

将源药包覆到聚己内酯超细纤维的芯部

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摘要 采用同轴共纺技术, 分别将白藜芦醇(Resveratrol, RT)和硫酸庆大霉素(Gentamycin-Sulfate, GS)源药包覆在生物可降解的聚己内酯(PCL)超细(直径为几百纳米)纤维芯部. 研究了这种纤维的制备过程以及它们的微观结构. 这种复合纳米纤维可在医疗新产品开发中发挥作用, 如用于制备新的羊肠线(体内手术伤口缝合线)或伤口敷布.

关键词 [复合纳米纤维](#) [静电纺丝](#) [微观结构](#) [TEM](#) [SEM](#)

分类号

ENCAPSULATION OF PURE DRUGS INTO THE CENTRAL PART OF POLYCAPROLACTONE ULTRAFINE FIBERS

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Abstract Electrospinning has been recognized as an efficient method for fabricating continuous nanofibers for, e. g., biomedical applications. With a modified CO-axial electrospinning technique, a pencil-like, core-shell composite nanofiber can be obtained. In this paper, two pure drugs, resveratrol and gentamycin sulfate, were encapsulated respectively into the cores of biodegradable polycaprolactone (PCL) ultrafine fibers with a diameter down to hundreds of nanometers. The fabrication process of these nanofibers and their micro-structural characteristics were investigated. Such composite nanofibers can be useful in controlled drug release and in the development of new medical devices as absorbable sutures inside human body or wound dressing materials.

Key words [Composite nanofibers](#) [Electrospinning](#) [Micro structure](#) [TEM](#) [SEM](#)

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