

The physical property of fibroin hydrogel composite

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Abstract

The silk fibroin has been widely investigated for application in the biomedical and biotechnological field, because of its variety of functionality. Casting of fibroin film has been studied and the physical property of casted fibroin film was also investigated in term of tensile strength, the secondary structure of protein and etc.

The formation of dried fibroin film mixed with various natural polymers was investigated. The film formation of fibroin mixed with various sugars was also carried out. Pretreatment of fibroin and adducts were usually carried out by homogenizer(Polytron, KINEMTICA AG, Switzerland). The parameter of temperature of casting, fibroin concentration, homogenization time and adduct mixing ratio were varied and the properties of the resulting films were investigated. The tensile test was performed by Univertial Tester(Vitrodyne V-1000, LIVECO Inc., Taiwan).

References

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