Solvent Casting

Subjects: Polymer Science

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Solvent Casting is a film-preparation method in which a polymer is dissolved, the solution is spread on a support, and the solvent is removed to leave a solid film [1]. A europium-substituted polyoxotungstate cast from solvent forms a film whose photophysical properties differ from those of its Langmuir-Blodgett counterpart [1]. Chitosan-filled polylactic acid films prepared by casting behave differently from melt-blended ones in mechanical and structural terms [2]. Piezoelectric poly(vinylidene fluoride)/hydroxyapatite/silver nitrate films are cast into thin biocompatible sheets [3]. Layer casting combined with freeze-drying and lamination produces porous gelatin/hydroxyapatite scaffolds with controlled porosity [4]. Compared with Pickering emulsion processing, casting gives a different balance of mechanical properties in surface-modified cellulose nanomaterial-reinforced polylactic acid composites [5].

solution film casting | polymer film | thin film | casting solution | nanocomposite film | evaporation

References

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