



Tannin Composite Fibers

[View U.S. Patent Application Publication No. US-2021-0230777 in PDF format.](#)

WARF: P190308US02

Inventors: Jess Reed, Christian Krueger, Emilia Alfaro-Viquez, Sergio Madrigal-Carballo, Hilary Urena Saborio, Sundaram Gunasekaran

The Invention

Composite nanofibers comprising polymers and tannins, methods of making same, and methods of use. The nanofibers include a polymer, such as a synthetic polymer, and a tannin. The tannin can include condensed tannins (proanthocyanidins) and/or hydrolyzable tannins. The nanofibers exhibit a number of structural and functional characteristics, such as enhanced swelling in aqueous liquid, enhanced antibacterial activity, enhanced bacterial adsorption, enhanced fibroblast adhesion, enhanced fibroblast proliferation, and enhanced surface coating of silver nanoparticles, among others. The nanofibers can be made by electrospinning a solvent mixture comprising the synthetic polymer and the tannin in a solvent. The nanofibers can be used in methods of isolating cells, methods of filtration, and methods of detecting cells, among others.

Additional Information

For More Information About the Inventors

- [Jess Reed](#)
- [Sundaram Gunasekaran](#)

Tech Fields

- [Materials & Chemicals : Composites](#)

For current licensing status, please contact Emily Bauer at emily@warf.org or 608-960-9842