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Fundamental questions
Elemental answers

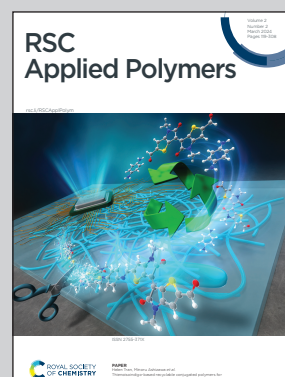


Showcasing research from Professor Roumeli and Professor Nance's laboratories, in the Materials Science and Engineering and Chemical Engineering Departments, at the University of Washington, USA.

Bacterial cellulose nanoparticles as a sustainable drug delivery platform for protein-based therapeutics

Bacterial cellulose nanoparticles (BCNPs) can serve as an eco-friendly nanomedicine platform, offering a sustainable solution for drug delivery. We developed BCNP nanoparticles from kombucha-cultured bacterial cellulose fibers, and examined their predominantly amorphous structure and efficient drug loading capabilities, demonstrated with bovine serum albumin as a model drug. BCNPs can potentially combine scalability and reduced waste in nanotherapeutic manufacturing.

As featured in:



See Eleftheria Roumeli *et al.*,
RSC Appl. Polym., 2024, **2**, 172.