

Biocompatible Adhesive Polymer Blends

This invention is a series of new biocompatible polymer adhesive blends achieved through simple mechanical mixing. The material shows adhesion while submerged in oil or water, and can keep water from absorbing into paper. It is a new pathway for creating adhesives from short-range molecular interactions.

Additionally, these materials have no curing time and can be re-used without any need for reapplication.

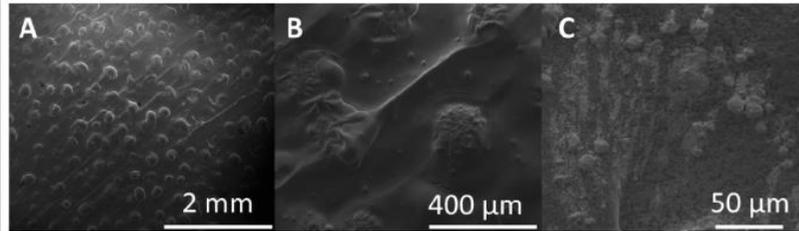
Problem

Traditional adhesives usually suffer from substrate and environmental limitations, long curing times, toxicity, and lack of recyclability.

Solution

This invention is non-toxic, amphibious, instant, reusable, easily scalable, and surface independent.

Composite at different magnifications



Competitive Advantages

- Can be easily created in bulk
- It can also be used as a sealant and an anti-corrosive coating
- Due to its biocompatibility and the fact that it can adhere skin together it may have possible applications in the treatment of wounds

IP Status

- Patent #US11174418B2
- Licensing available

Status of Development

- Prototyping stage