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Olchowski/Potter Award

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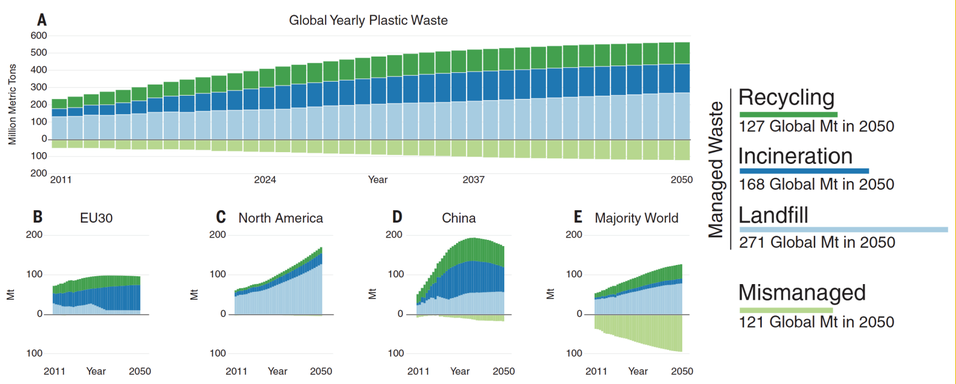
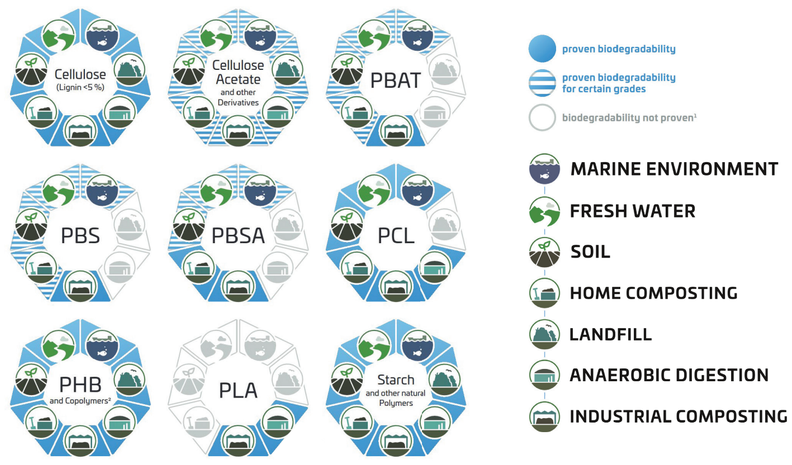
Rapid degradability screening strategy for novel biopolymer with improved performance

We developed a quick and reliable degradability screening strategy to address key limitations in the development of novel bioplastics. In parallel, a custom-built laboratory-scale biaxial stretching machine enables enhancements of the mechanical and barrier properties of novel biopolymers. By combining processing optimization with sustainability assessment, this approach enables a faster and more efficient development cycle for novel bioplastic materials.

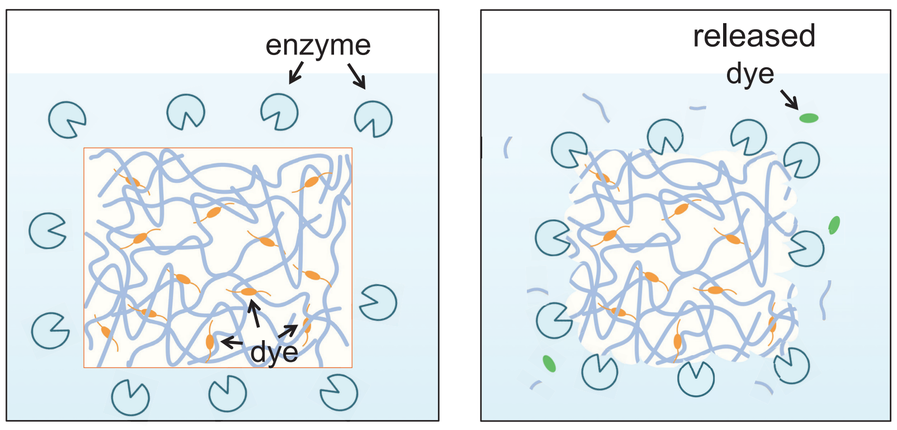
Plastic Pollution: a Global Challenge



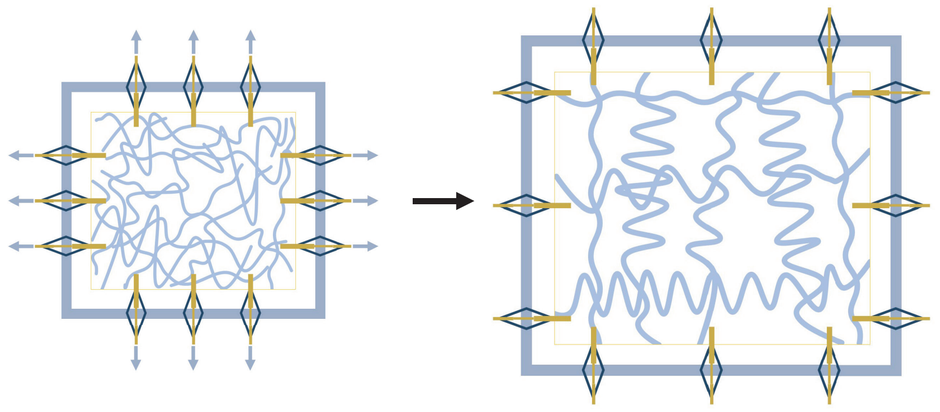
Bioplastics: Degradability Concerns



Degradability Screening: Days Instead of Months



Biaxial Stretching: Enhanced Performance



Realigned polymer chains have better barrier and mechanical properties

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