

Development of Degradable Polymers Based on Plant-Derived Renewable Resources

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We are developing novel biobased polymers with excellent properties from plant-derived renewable resources and multi-lock polymers having degradable units in the polymer chains by precision polymerization.

(1) Novel Biopolymers from Non-Food Biomasses

The synthesis of vinyl and cyclic compounds from non-food biomasses and their precision polymerizations will provide novel biopolymers with unique properties.

(2) Degradable Vinyl Polymers

Precision copolymerization of vinyl and cyclic monomers will enable the synthesis of vinyl polymers with degradable units in the main chains.

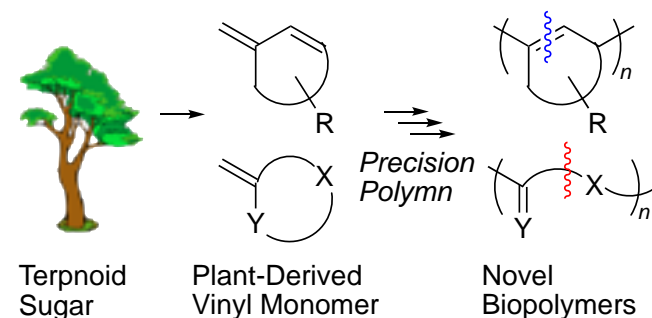
(3) Multi-Lock Biopolymers

Multi-lock biopolymers with multi-degradable units will be prepared by precision copolymerization of plant-derived monomers with different cleavable bonds.

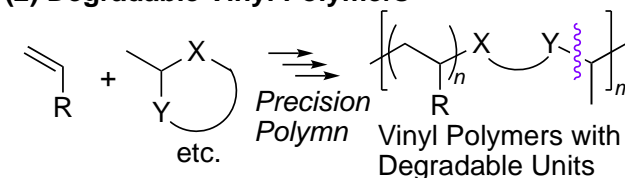
Final Goals in FY 2029

We aim to establish synthetic technology for degradable biopolymers from plant-derived renewable resources by developing original multi-lock mechanisms.

(1) Novel Biopolymers from Non-Food Biomasses



(2) Degradable Vinyl Polymers



(3) Multi-Lock Biopolymers

