

Resource Circulation

R&D Project Title : A new functionalization strategy for biomass: two-stage utilization of polymeric compounds in plants

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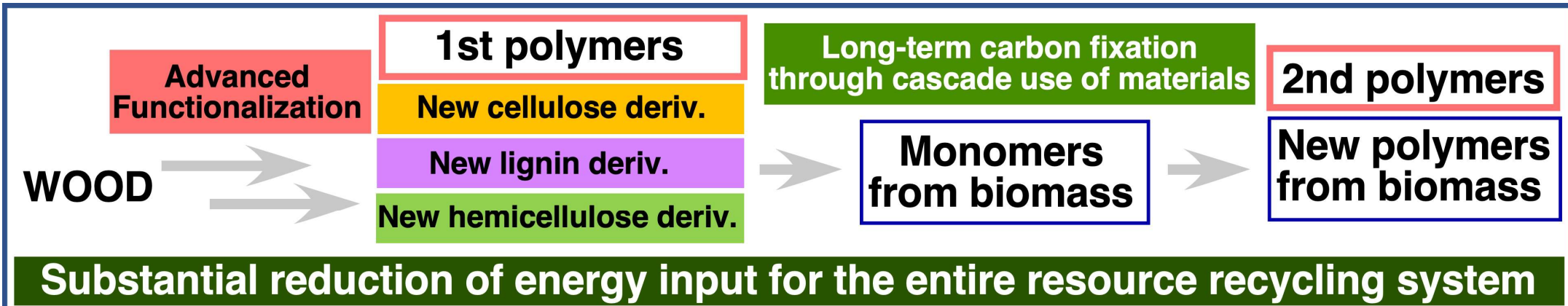
R&D Team : Daicel Corporation



Summary :

We aim at contributing the carbon neutrality. We will isolate cellulose, lignin, and hemicellulose derivatives directly from woody biomass without passing through ordinary pulping process. Through cascade utilization of those derivatives, woody biomass will be fixed as a carbon resource for a long period of time.

At the first stage, natural polymers will be converted to semi-synthetic polymers and used as polymeric materials. At the second stage, the semi-synthetic polymers will be converted to compounds with low molecular weight, that will be polymerized to give new biomass-based polymers.



<http://www.fukugou.kais.kyoto-u.ac.jp/index.html>