

Demonstration project for industrial production technology of non-edible biomass-derived (Green Chemical Inc.)



Green Chemical

City	Year of Establishment	Founder
Fujisawa City, Kanagawa	2018	Kinryo Cho

Partner VC	Latest round of Fundraising	Valuation
MIRAI SOZO INVESTMENTS Inc.	Series A	Non-Disclosure

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○ Business Plan
Aiming to contribute to a sustainable society through the production of bioplastics, this project focuses on developing industrial production and application technologies for aromatic furan-based chemicals, including hydroxymethylfurfural (HMF), a key chemical intermediate, and 2,5-furandicarboxylic acid (FDCA), a precursor for bioplastics. These chemicals are derived from sugars produced from abundant yet underutilized non-edible biomass resources such as pulp and rice husks.

○ Research Outline
In this project, we aim to develop a continuous flow process for the low-cost and stable production of high-performance resin precursors, including HMF, FDCA, and related furan-based chemicals, from biomass-derived sugars. By realizing functionalities that differ from those of conventional petroleum-based materials, this project seeks to address challenges in decarbonization and value enhancement in the chemical materials sector. Furthermore, by achieving the following proof-of-concept (PoC) milestones, we aim to establish the commercialization of biomass-derived aromatic chemicals and a manufacturing licensing business model:

- ①Scale-up demonstration of a continuous flow process for FDCA production from glucose (1 ton/year scale), in collaboration with Soken Chemical & Engineering Co., Ltd., and acquisition of production data
- ②Optimization of catalysts and reaction conditions to achieve low-cost and high-efficiency production
- ③Application evaluation and prototype development of furan-based chemicals and related polymers (e.g., adhesives, plasticizers, packaging materials)

Business Area/Field	Research Period	Research Grant Amount	International collaborative technology demonstration
Materials	PCA 2026～2027 FY	JPY 475 million	-