

F. Biomass Refining

Number	R&D Achievement Name	Applicable Industry	Executive Unit	Contact Person	Extension	Remarks
F001	Method for Production of Cellulolytic Enzymes by Pretreated lignocellulosic substrates	Industry of Bioenergy, Food, Paper and Specialty Chemicals	Chemistry Division	Sheng-Hsin Chou	5119	
F002	Preparation Method Conductive to Enhancing Enzymatic Activity of Cellulase	Industry of Cellulosic Alcohol, Paper, Forestry and Bioagriculture	Chemistry Division	Sheng-Hsin Chou	5119	
F003	Method for Enzymatic Hydrolysis of Cellulosic Biomass	Industry of Bioenergy, Biochemicals, Forestry and Bioagriculture	Chemistry Division	Sheng-Hsin Chou	5119	
F004	High-performance Xylose Fermentation Yeast Strain for Cellulosic Ethanol	Industry of Bioenergy, Biochemicals, Forestry and Bioagriculture	Chemistry Division	Chiung-Fan Huang	5120	
F005	A Method to Enhance Xylose Concentration in Hydrolysates Extracted from Lignocellulosic Biomass	Industry of Bioenergy, Food, Paper and Specialty Chemicals	Chemistry Division	Wen-Hua Chen	5115	
F006	Device and Method of Hydrothermal Pretreatment for Lignocellulosic Biomass	Industry of Bioenergy, Food, Feed, Paper and Specialty Chemicals	Chemistry Division	Wen-Hua Chen	5115	
F007	Method and Device for Continuous Treatment of Lignocellulosic Biomass	Industry of Bioenergy, Food, Feed, Paper and Specialty Chemicals	Chemistry Division	Wen-Hua Chen	5115	

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F008	Depolymerization and Saccarification Process for Lignocellulosic Biomass of Agricultural and Forestry Wastes	Industry of Bioenergy, Food, Feed, Paper and Specialty Chemicals	Chemistry Division	Wen-Hua Chen	5115	
F009	Cyclone Device for Separating Sticky Material from Gas Stream	Industry of Plastic Powder Molding, Bioenergy, Petrochemical, Cement and Food	Chemistry Division	Wen-Hua Chen	5115	
F010	Composition Analysis Technique for Lignocellulosic Biomass	Industry of Bioenergy, Biochemicals, Forestry and Bioagriculture	Chemistry Division	Wen-Hua Chen	5115	
F011/H015	Pneumatic Conveying Device for Fine Powder	Industry of Plastics, Bioenergy, Petrochemical, Cement, Opto-electronics, Pharmaceutical, and Food	Chemistry Division	Wen-Hua Chen	5115	
F012	Medium-high Temperature Carbon Dioxide Capture Technology	Industries such as Cement, Steel, Petroleum Refining, Petrochemistry, and Thermal Power Generation.	Chemistry Division	Yu, Ching-Tsung	5103	
F013	Technology of Removal of Mercury in Syngas from Gasification	Industries such as Power Generation, Steel, Environmental Protection, Petroleum Refining, and Petrochemistry.	Chemistry Division	Yu, Ching-Tsung	5103	
F014	Ethanol Fermentation Technology of Lignocellulose	Industry of Bioenergy, Biochemicals, Forestry and Bioagriculture	Chemistry Division	Wei-Lin Tu	5007	

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F015	A Production Strain of 2,5-Furandicarboxylic Acid (FDCA)	Industry of Forestry, Agriculture and Bioplastics Manufacturing	Chemistry Division	Wei-Lin Tu	5007	
F016	A Production Strain of L-form Lactic Acid	Industry of Biochemicals, Forestry and Bioagriculture	Chemistry Division	Wei-Lin Tu	5007	
F017	A Production Strain of D-form Lactic Acid	Industry of Biochemicals, Forestry and Bioagriculture	Chemistry Division	Wei-Lin Tu	5007	
F018	A Production Strain and Fermentation Technology of D-form Lactic Acid	Industry of Forestry, Agriculture and Bioplastics Manufacturing	Chemistry Division	Wei-Lin Tu	5007	
F019	High Performance Cellulosic Ethanol Fermentation Strain Using Glucoses	Industry of Bioenergy, Biochemicals, Forestry and Bioagriculture	Chemistry Division	Chia-Hsin Chen	5106	
F020	Production Technique of Lactic Acid Using Multiple Sugar-based Lignocellulosic Biomass	Industry of Forestry, Agriculture, Bioplastics Manufacturing, Food Package and Pharmaceutical	Chemistry Division	Chia-Hsin Chen	5106	
F021	Xylitol and Bioethanol Co-production Fermentation Technology	Industry of Bioenergy, Biochemicals, Forestry and Bioagriculture	Chemistry Division	Chung-Mao Ou	5061	
F022	Lactic Acid Production Process Using Lignocellulose as Feedstock	Industry of Biochemicals, Forestry and Bioagriculture	Chemistry Division	Chung-Mao Ou	5061	
F023	Bioethanol Process Using Agricultural and Forestry Waste as Feedstock	Industry of Bioenergy, Biochemicals, Forestry and Bioagriculture	Chemistry Division	Chung-Mao Ou	5061	

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F024	Rapid Esterification of Lignocellulosic Lactic Acid	Industry of Biochemicals and Petrochemical	Chemistry Division	Ming-Feng Jang	5353	
F025	Process and Equipment for the Demonstration Production of Cellulosic Lactic Acid Using Woody Biomass as Feedstock	Industry of Wood Processing and Bioplastics Manufacturing	Chemistry Division	Chung-Mao Ou	5061	
F026	Process Technology for Depolymerization and Saccharification of Woody Lignocellulosic Biomass	Industry of Wood Processing and Bioplastics Manufacturing	Chemistry Division	Fong-Yu Yen	5102	
F027	Organosolv Pretreatment Method for Lignocellulosic Biomass	Industry of Bioenergy, Biochemicals, Forestry and Bioagriculture	Chemistry Division	Fong-Yu Yen	5102	
F028	Integrated Method for Improving Production Rate of Biogas Using Depolymerization with Anaerobic Digestion from Lignocellulosic Feedstock	Industry of Bioenergy, Biochemicals, Forestry and Bioagriculture	Chemistry Division	Ming-Feng Jang	5353	