

## Continuous Synthesis of Diesel Fuel from Wood

We have succeeded in a continuous synthesis of diesel fuel from woody biomass in laboratory scale. The new process consists of pressurized gasification, gas cleaning with activated carbon at high temperature, and Fischer-Tropsch synthesis. As this process does not have gas compression and reheating process, compact and portable plants are expected. The portable plants are economical since the cost for wood collection can be reduced.

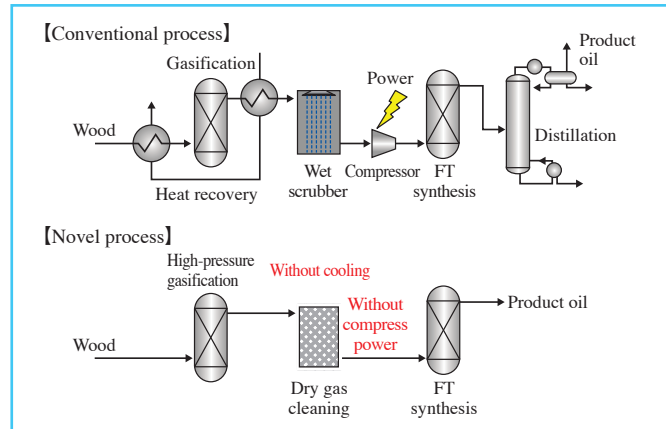


Figure : Conventional process and novel process

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## Chemical Recycling of PET to Monomers in High Temperature Water

We have developed a new technique of chemical recycling for polyethylene terephthalate (PET), which can depolymerize PET to terephthalic acid (TPA) and ethylene glycol (EG) using water at high temperature. This method uses no any hazardous material, and is a promising environmentally-friendly chemical recycling process. The process is expected to be an economical compact process in combination with the present collection system for used PET bottles in Japan.

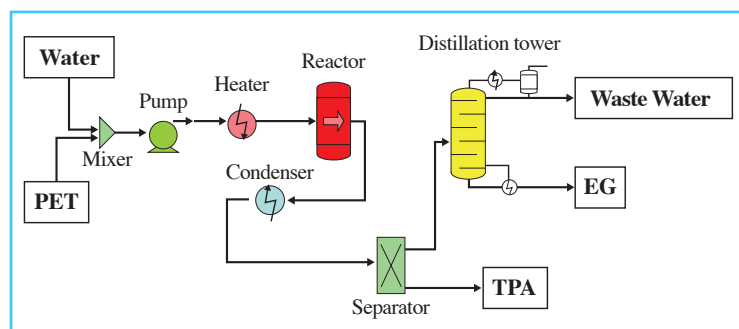


Figure : Flow scheme of chemical recycling for PET in water

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