

Exploring the potential of resource-recovery from plastic waste in New Zealand

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- New Zealand generates 2.8×10^8 kg of plastic waste per year.
- Current waste management methods (e.g. waste disposal) are grossly ineffective: waste plastics are resilient and may be retained in the environment for thousands of years.
- A ‘circular’ waste management approach that emphasises resource recovery is proposed as an alternative to the existing ‘linear’ waste management approach.
- Complex carbon chain polymers can be converted to fuels and useful chemicals via a series of depolymerisation, condensation and re-polymerisation reactions.

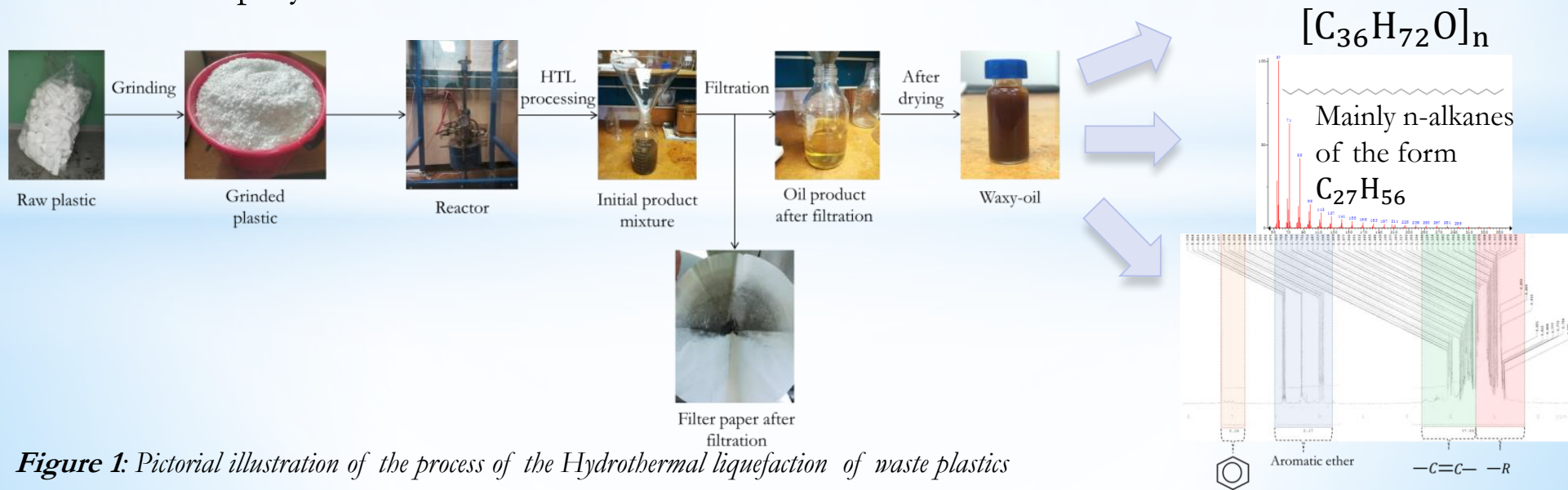


Figure 1: Pictorial illustration of the process of the Hydrothermal liquefaction of waste plastics