

## Fuels from plastic waste

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The process uses one of the most common plastics, poly(ethylene terephthalate) (PET). The PET from plastic bottles is first broken down into a chemical called dimethyl terephthalate (DMT) using methanol. The DMT is then converted into the desired hydrocarbon fuels by further reactions using catalysts. These catalytic reactions are very 'green' as there are no separation steps and the catalyst lasts for years. The technique therefore appears to be a promising way to divert plastic waste away from landfill.

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1. Give an environmental problem caused by waste plastic.
2. Suggest the environmental advantages of this process.
3. Explain why a catalyst can be used for years.
4. The polymer PET is a condensation polymer. What is condensation polymerisation?