



The Use of Bacterial Transformation in the Degradation of Plastics



PETE:

Polyethylene

Terephthalate

- One of the most common pollutants
- One of the most commonly used plastics in general





PETE is found in plastic bottles, microwaveable trays. Synthetic clothing, insulation, and more. Many believe that we wouldn't be able to cope if plastic was to be removed from our world.

1 μm



Ideonella Sakaiensis

Very few needs
Thin film/42 days

A top-down view of a petri dish containing a red agar medium. The dish shows several streaked bacterial cultures. On the right side, there are multiple parallel streaks of bacteria, each starting with a dense, confluent line that tapers into a series of smaller, discrete colonies. On the left side, there are several smaller, more isolated colonies, some appearing as pairs or small groups. The overall appearance is characteristic of a bacterial transformation experiment where different strains or plasmids are being tested.

Bacterial
Transformation:
A simple process?

- Cheap to make
- Relatively quick to make
- Same process as PETase

