New process breaks down mixed textiles

Slide by Neil Goalby. Available from rsc.li/3zB8Rmy

Most fast fashion clothing ends up in landfills or incinerated due to the difficulty of recycling complex fibre mixtures. Less than 1% is actually recycled. This is because most clothing contains complex mixtures of fibres that are hard to separate and sort.

A new chemical recycling process breaks down (depolymerises) polyester and spandex in mixed textiles, producing valuable monomers while preserving cotton and nylon. This offers a promising solution to the growing problem of textile waste and its environmental impact.



Fast fashion with a high price

Questions

- 1. What is meant by a 'polymer' ?
- 2. Explain why mixed fabric clothing is difficult to recycle.
- 3. Give two advantages of the new chemical recycling process.