

The UK produces over 160,000 tonnes of shell waste annually Is there somewhere better this shell could end up than landfill?



Chemical extraction

Biological extraction



Author: Laura Banham Supervised by: Professor John Summerscales

BSc (Hons) Marine and composites technology

materials for plastics

But wait, what is chitin?

The second most abundant polymer found in nature. A structural component found in the exoskeletons of crustaceans, insects and the cell wall of fungi

What can it be used for? Human tissue engineering Food packaging Wastewater treatment Pesticide Bioplastic

Health supplement

How viable is chitin as a bioplastic?

Looking at this chart is does not appear that chitin is a viable raw material for plastics but, innovative, cost-effective extraction methods are still being explored.

> Landfill cost per tonne $= \pm 96.70$

E-mail: lbanham91@outlook.com

Chitin cost per tonne = £10,100This poster would need to be more than twice the size to fit the chart on!

PVC cost per tonne = £631.63