

Materials

Form
Function
Environment

University of
Kent

'Hard' materials



bloomberg.com

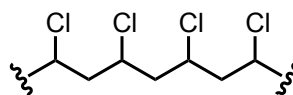
Structure: Robust,
ultralight materials
e.g. carbon fibres

Function: materials
with key chemical
properties (eg solar)

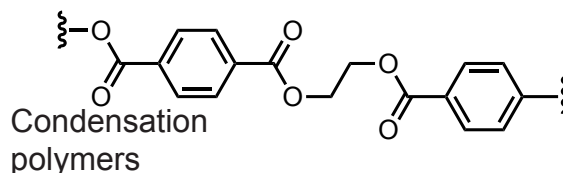


'Soft' materials - *plastic*

The 20th century saw the rise of plastics
in modern society



Addition
polymers



Condensation
polymers

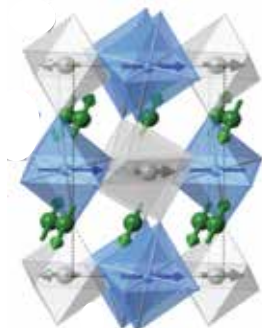
But degradation a huge issue



forbes.com

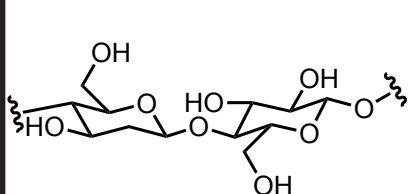
What do we do at Kent?

Materials for magnetism - new generation
data storage



Philos. T. R. Soc. A, 2019, 377, 7 Chem. Commun., 2019, 55, 3331

Plastics unwrapped - can we use natural
cellulose to make biodegradable plastic?



Langmuir 2017, 33, 32



Most natural polymers dissolve in water - can
you identify any?



What can you do at Kent?

Learn about the *theory* and *practice* of
materials chemistry

Choose a computational or synthetic
research project, use your understanding

Learn by teaching the local community

