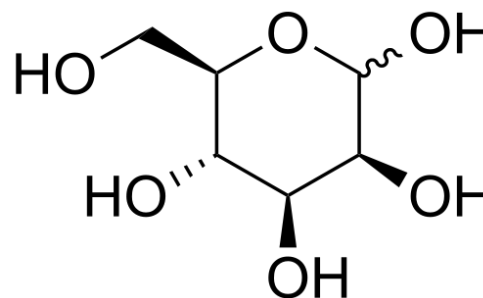


Record breaking carbohydrate

Read the full article at rsc.li/373AgLh

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Automated synthesisers can easily prepare long protein or DNA sequences – polymers with 200 individual units are not unusual. But automated polysaccharide synthesis is lagging behind as there are more things that can go wrong in the process. The growing polymer was fixed on a solid support. It was produced through a four-step process for each monomer addition. The 100-mer took 203 steps, yielding 2% of the product in just 188 hours.



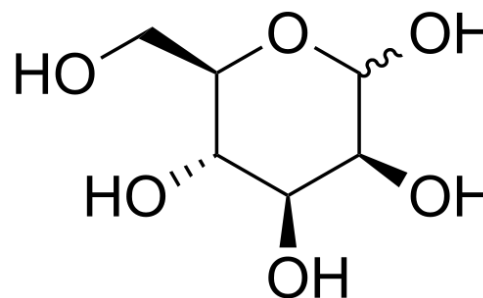
The chemical structure of mannose – the sugar monomer used to create the longest synthetic carbohydrate

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1. What is meant by 'synthetic'?
2. What type of monomer makes up a DNA sequence?
3. Suggest why the yield of the product is low.