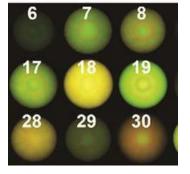
Poly(ionic liquid)s act like taste buds for saccharides

Read the full article at rsc.li/2TtKNJ5

Scientists have developed a sensing platform for identifying different simple sugars, called saccharides. The system uses small spheres of poly(ionic liquid)s combined with compounds called luminogens, which have fluorescent properties.



Source: © Guangtao Li/Tsinghua University

The spheres act like taste buds on a tongue. The ionic liquids interact with different saccharides and this causes the luminogens to change colour. Different saccharides produce different colours. The system can detect 32 saccharides including glucose and fructose. This system is better than previous ones because it can detect more saccharides and is stable at a wider range of pH (from 4–9).

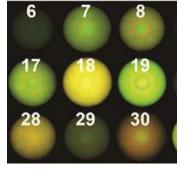
Detecting saccharides has important uses, for example their presence might reveal contamination or spoilage in food. Detecting saccharides in human serum can also show the presence of disease.



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- 1. Give the pH of a neutral solution.
- 2. What is a polymer?
- 3. Ionic substances are usually solid at room temperature. Explain why.
- 4. Suggest why poly(ionic liquid)s are liquids at room temperature.

