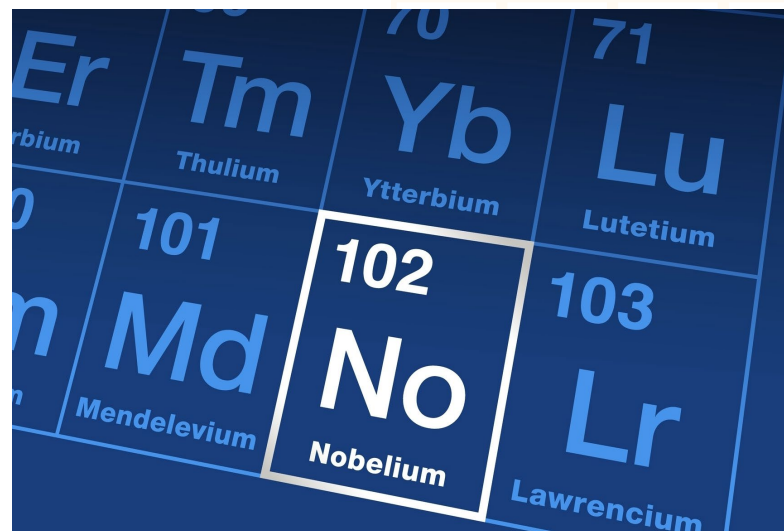


Nobelium – the heaviest element with compounds

Slide by Neil Goalby. Available from rsc.li/4oNizGq

Nobelium is element 102 and is too unstable to exist naturally on Earth. Scientists first made its isotopes in particle accelerators in the 1950s. Nobelium has no known uses and only a few of its chemical properties have been confirmed experimentally.

Researchers have now shown that nobelium atoms can form simple molecules when exposed to small amounts of nitrogen and water. A mass spectrometer detected these molecules, making nobelium the heaviest element known to form compounds.



Er Erbium	Tm Thulium	70 Yb Ytterbium	71 Lu Lutetium
101 Md Mendelevium	102 No Nobelium	103 Lr Lawrencium	

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Nobelium, element 102, is part of the actinides, a group of metallic, radioactive elements that sit at the bottom of the periodic table

Questions

1. How many naturally occurring elements are there in the periodic table?
2. What is meant by an isotope?
3. Suggest why it is difficult to study the properties of elements like nobelium.