

DART exercise answers

Education in Chemistry

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rsc.li/EiC218-thehuntison

1. Which two countries are involved in the race for a new element?
Japan and Russia (or an American-Russian team)
2. How many atoms were observed to confirm the discovery of element 113?
3
3. Using a full periodic table (www.rsc.org/periodic-table) and the article, work out how many elements there are which are reported in the periodic table but not found on Earth.
24
4. Describe how a new superheavy element is made.
Two atoms are smashed together to make a bigger one in a particle accelerator.
5. Give two reasons why it is so difficult to make a superheavy element
Reason 1: A direct hit between two nuclei is very rare.
Reason 2: If there is a hit then the nucleus may shake itself apart in nuclear fission.