

Isotope Crossword Puzzle

Across

4. Two or more types of atoms that contain the same number of protons but different numbers of neutrons.

5. The time taken for the radioactivity of a specified isotope to fall to half of its original value

8. A particle with a positive charge in the nucleus of an atom

14. Photons that carry energy in the form of electromagnetic waves

15. A particle with a neutral charge in the nucleus of an atom

16. When an atom has an uneven number of protons and neutrons it is...

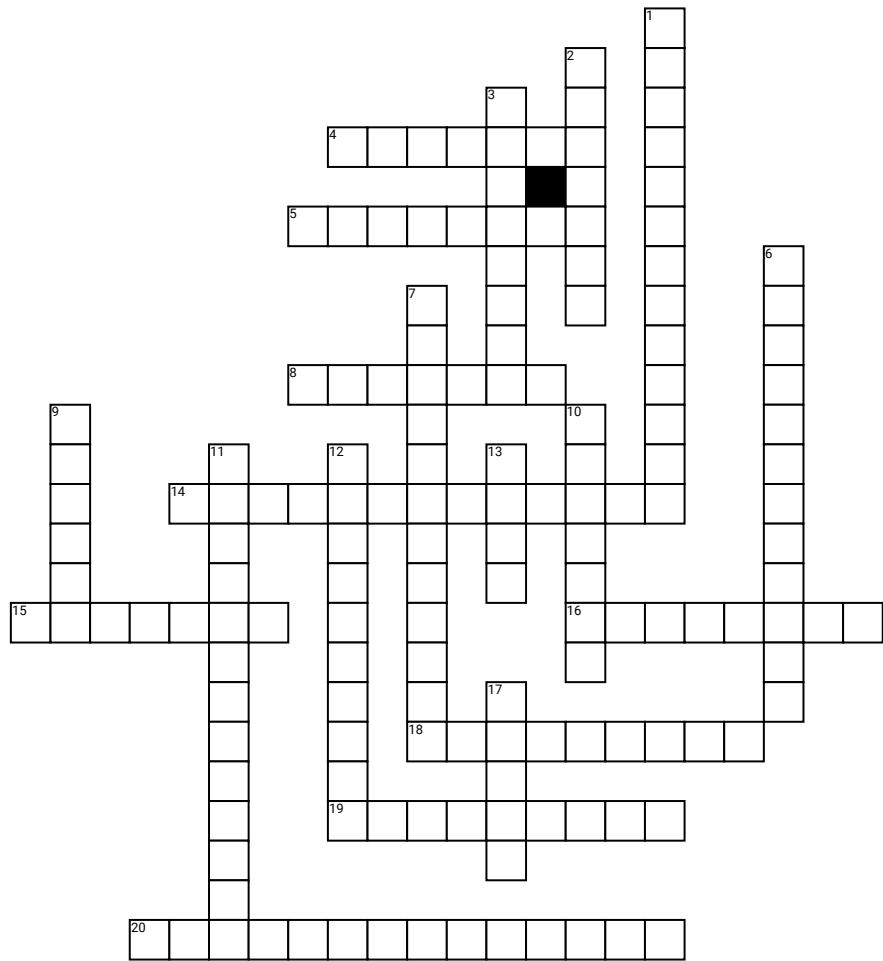
18. A particle with a negative charge

19. The emission or transmission of energy in the form of waves or particles through space or through a material medium

20. Occurs when an atom has more protons than electrons

Down

1. Helium-4 nucleus, a particle consisting of two protons and two neutrons bound together



2. A substance that cannot be broken down into any other substance

3. The antimatter counterpart of an electron β^-

6. Number of protons

7. A high-energy electrons emitted by a radioactive decay of an atomic nucleus

9. When an atom has a net electrical charge of 0 it is...

10. The positively charged central core of atom, consisting of protons and neutrons

11. Elements that undergo radioactive decay

12. Number of protons + number of neutrons

13. The smallest unit of ordinary matter that forms a chemical element

17. The change of an element into a different element, usually with some other particles and energy emitted