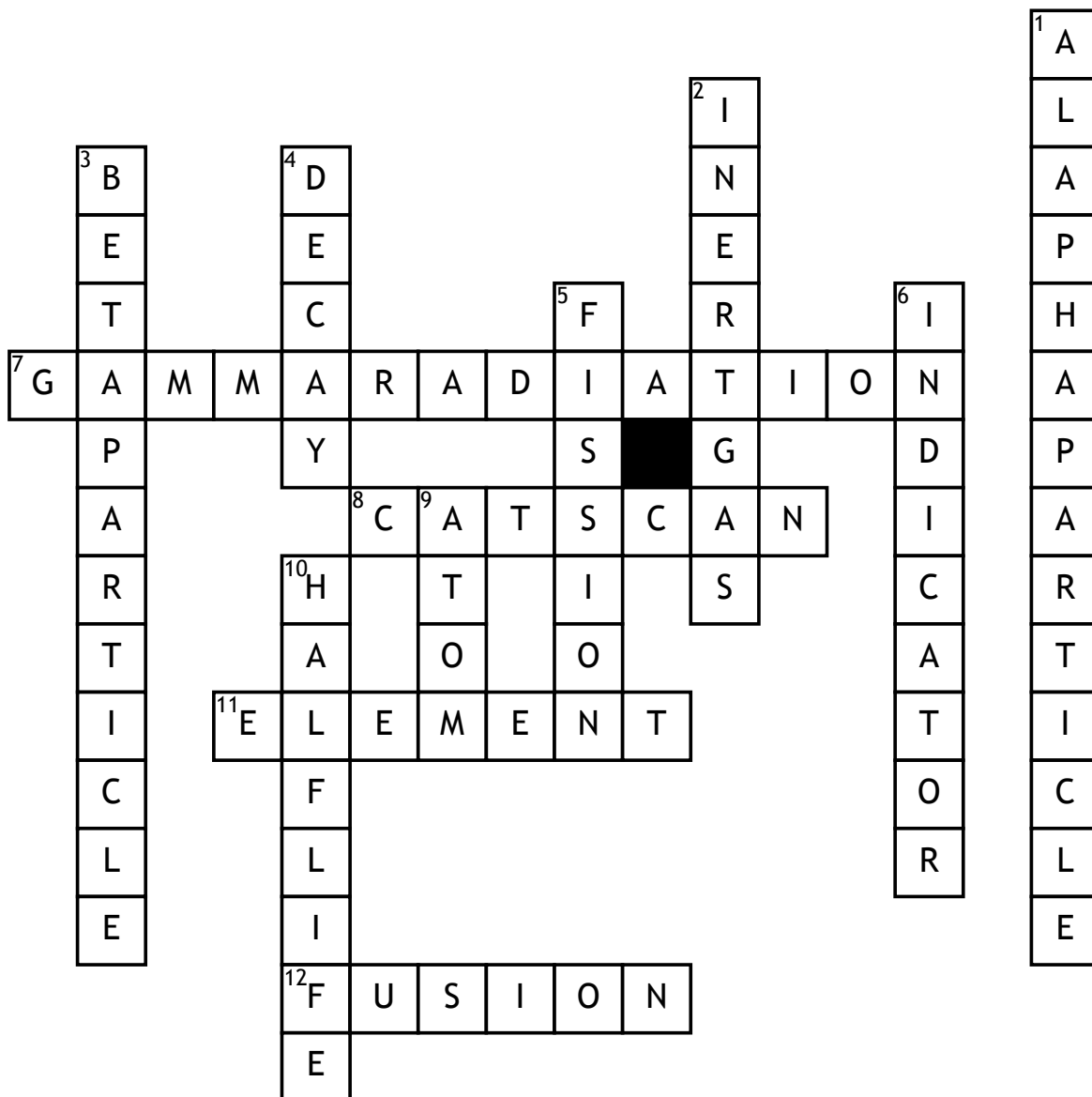


# Nuclear



## Across

7. Highly-energetic, short-wave electromagnetic radiation emitted from the nucleus of an atom.

8. an X-ray image made using computerized axial tomography.

11. Chemical base material which cannot be chemically converted into simpler substances.

12. Formation of a heavy nucleus from lighter nuclei releasing energy - the binding energy.

## Down

1. Positively charged particle emitted by various radioactive materials during decay. It consists of two neutrons and two protons

2. Non-flammable gas, e.g. CO<sub>2</sub>, nitrogen, noble gases.

3. Electron with positive or negative charge emitted by a nucleus or elementary particle during beta decay or produced by a nuclear reaction

4. The spontaneous conversion of a nuclide into another nuclide or into another energy state of the same nuclide.

5. Fission of an atomic nucleus into two parts of the same size caused by the collision of a particle.

6. Element or compound made radioactive for easy tracing in biological, chemical and industrial processes.

9. Smallest particle of an element which cannot be chemically divided any further.

10. The period during which half of the nuclei decay in a quantity of radionuclides.