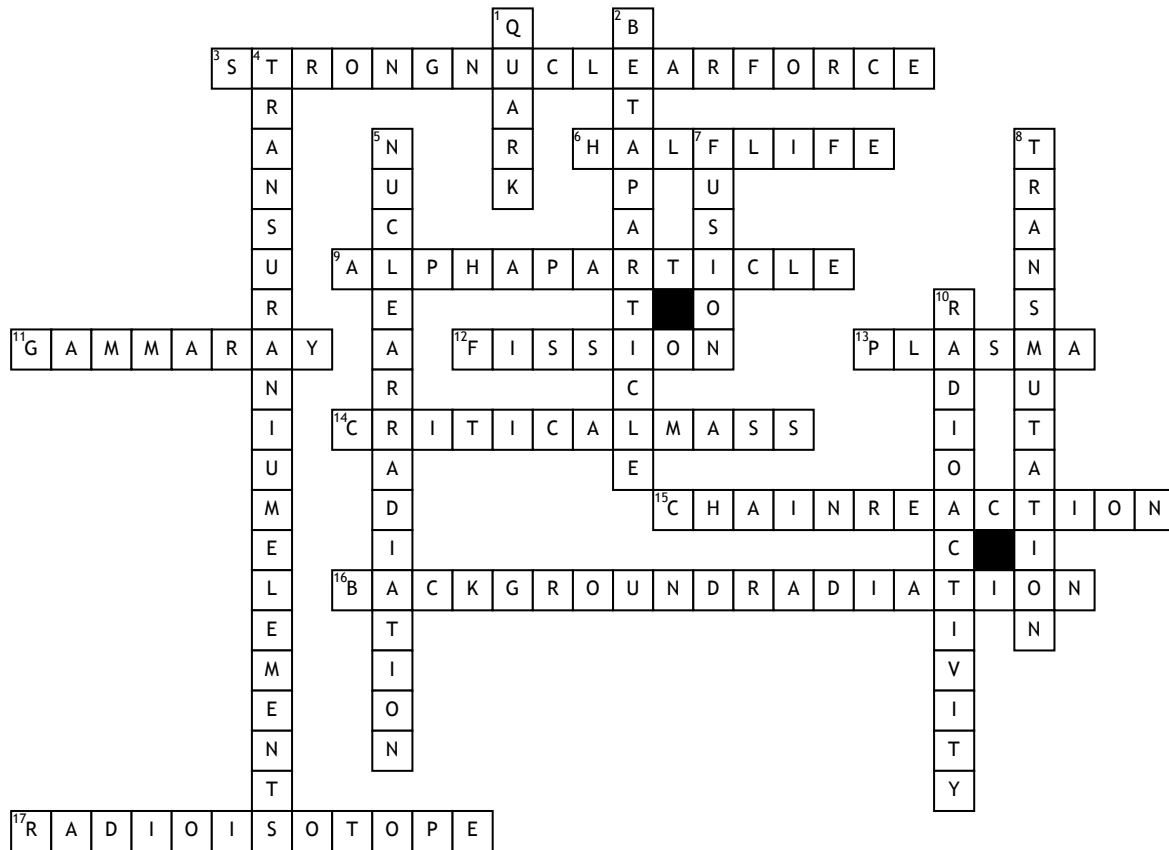


Name: _____

Date: _____

nuclear chemistry



Across

3. the attractive force that bonds protons and neutrons together in the nucleus
 6. the time required for 1/2 of a sample of a radioisotope to decay
 9. a positively charged particle made up of 2 protons and 2 neutrons
 11. a penetrating ray of energy emitted by an unstable nucleus
 12. the splitting of an atomic nucleus into smaller parts
 13. a state of matter in which atoms have been stripped of their electron

14. the smallest possible mass of a fissionable material that can sustain a chain reaction
 15. neutrons released during the splitting of an initial nucleus trigger a series of nuclear fission
 16. occurs naturally on the environment

17. any atom containing an unstable nucleus

Down

1. a subatomic particle theorized to be among the basic units of matter
 2. an electron emitted by an unstable nucleus

4. elements with atomic number greater than 92

5. charged particles and energy that are emitted from the nuclei of radioisotope

7. a process in which the nuclei of 2 atoms combine to form a larger nucleus

8. the conversion of atoms of one element to atoms of another

10. the process in which an unstable atomic nucleus emits charged particles and energy