

Chapter7 & Nuclear Study Guide

Identify the letter of the choice that best completes the statement or answers the question

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| _____ 1. Carbon is able to bond with other elements in many different ways because it has | a) graphite |
| _____ 2. How many chemical bonds can each carbon atom form? | b) organic |
| _____ 3. Which form of pure carbon is so hard that it can be used in cutting tools? | c) four valence electrons |
| _____ 4. Which form of pure carbon is formed of layers that slide past each other? | d) determine the age of rocks and fossils |
| _____ 5. Compounds that contain the element carbon are called | e) isotopes |
| _____ 6. When a large unstable atoms like uranium-235 is bombarded with atomic particles | f) the nucleus splits apart |
| _____ 7. Nuclear fission reactions are used for | g) penetrate and damage cells |
| _____ 8. Nuclear waste (the left over uranium) must be stored | h) power plants and bombs |
| _____ 9. Radioactive decay happens when atomic nuclei of unstable _____ release fast moving particles and energy. | i) down by 4 |
| _____ 10. An Alpha particle is 2 protons and 2 neutrons, like a | j) for centuries |
| _____ 11. During Alpha decay atomic mass goes | k) helium |
| _____ 12. Beta decay is a danger to humans because the particles can | l) four |
| _____ 13. Half-Life is used to | m) diamond |