|  |  |
| --- | --- |
| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

ATOMIC STRUCTURE

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |  |  |  |  | 3 |  |  |  | 4 |
|  |  |  |  |  |  |  |  |  |  | 5 |  |  |  |  |  | 6 |  |  |  |  |  |  |  |  |  |  | 7 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 8 |  |  |  |  |  |  |  |  | 9 |  |  |  |  |  |  |
|  |  |  |  |  |  |  | 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 11 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 13 |  |  |  |  |  |  |  | 14 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 15 |  |  |  |  |
|  | 16 |  |  |  |  |  | 17 |  |  |  |  | 18 |  |  |  |  |  |  |  |  |  |  | 19 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 20 |  |  |  |  |  |  |  |  | 21 |  |  |  |  |  | 22 |  |  | 23 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 24 |  |  |  |  |  | 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 26 |  |  |  |  |  |  |  |  |  |  | 27 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 28 |  |  |  |  |  |  | 29 |  |  |  |  |  |  |  |  |  | 30 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 31 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | 32 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 33 |  | 34 |  |  |  |  | 35 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 36 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 37 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

|  |  |
| --- | --- |
| **Across**  **6.** has a mass of about 1 amu  **10.** what is mass number of Cl-36  **11.** When an atom has equal protons and electrons it is \_\_\_\_\_.  **13.** An atom has 20 protons and 18 electrons it is a \_\_\_\_\_\_\_  **14.** atom that gains 2 electrons would have this charge  **16.** average mass of all isotopes  **19.** atomic number of 47  **20.** negative subatomic particle  **21.** subatomic particle with no charge  **26.** In a neutral atom of Sulfur, there are 16 protons and 16 \_\_\_\_\_\_.  **27.** number of electrons in neutral atom of lithium  **28.** positive charged atom  **29.** smallest particle of an element that still retains properties of the element  **30.** most of an atoms mass is found here  **33.** negative charged atom  **35.** 33 electrons in neutral atom  **36.** whole number listed on the periodic table  **37.** an atom with the same atomic number and different \_\_\_\_\_\_\_ | **Down**  **1.** positive subatomic particle  **2.** atoms that lose electrons have a \_\_\_\_\_\_ charge  **3.** location of protons and neutrons  **4.** atomic number of 28  **5.** neutral subatomic particle  **7.** having no charge  **8.** How many neutrons are in N-16  **9.** Atoms that gain electrons  **12.** total protons + neutrons  **15.** located in the electron cloud  **17.** To be neutral, protons must equal \_\_\_\_\_\_.  **18.** charge atom  **22.** center of atom  **23.** potassium has a charge of +1. It has \_\_\_\_\_\_ electrons  **24.** Cl-35 has 18 \_\_\_\_\_.  **25.** atoms of same element with different masses  **31.** an atom has 11 protons + 12 neutrons =  **32.** number of protons in carbon  **34.** Mg-24 and Mg-25 are \_\_\_\_\_ of the same element |