Unit 6, 2014, S2 – Particles with Internal Structure –

Study Guide

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| 1. What are cathode rays? Describe the evidence that supports the idea that particles have a property we call charge. |  |
| 2. What was the proof of electrons? Describe how Thomson concluded that the atom had electrons. |  |
| 3. Describe the Thomson model of an atom. Sketch the model |  |
| 4. Sketch atoms of the “sticky tapes” before separation and after separation. |  |
| 5. List properties that distinguish metals from non-metals. |  |
| 6. What is the basis of metal conductivity? |  |
| 7. How small is an atom? |  |
| 8. How did Rutherford’s experiment cause Thompson’s model to be revised? Explain or sketch Rutherford’s experiment. What did Rutherford discover? |  |
| 1. Sub-atomic particle properties: complete the chart. |  |
| 1. nucleus | **Central part of the atom that contains the protons and neutrons and almost all the mass of the atom.** |
| 1. Explain atomic number | **The number of protons in the nucleus of an atom and the number of electrons in a neutral atom.** |
| 1. What distinguishes one atom from another atom? | **The number of protons determines each element’s identity.** |
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