

Methods of Electron Emission



Based on the provided PDF on **Methods of Electron Emission**, here are 20 fill-in-the-blank questions you can use for this topic:

1. _____ **emission** occurs when a material is heated to a high temperature.
2. The process of heating a metal to emit electrons is called _____ emission.
3. In thermionic emission, the electrons gain enough energy to overcome the _____ of the material.
4. Thermionic emission is commonly used in _____ tubes and electron microscopes.
5. _____ **emission** occurs when a strong electric field pulls electrons out of a metal.
6. Field emission is also known as _____ emission.
7. In field emission, a strong _____ is applied to the metal to reduce the work function.
8. _____ **emission** occurs when light of sufficient energy strikes a metal surface.
9. The energy of the incoming _____ must be greater than the work function for photoelectric emission to occur.
10. The photoelectric effect is used in devices like _____ cells and photodetectors.
11. _____ **emission** occurs when high-energy particles collide with a material, ejecting electrons.
12. Secondary emission is used in devices such as electron multipliers and _____ tubes.
13. In thermionic emission, the energy required for electron emission is provided by _____ energy.
14. Field emission is often used in _____ **displays** and in electron microscopes.
15. In photoelectric emission, the electrons are ejected when struck by _____.
16. The process where electrons are emitted due to the impact of other high-energy particles is called _____ emission.
17. The process of photoelectric emission is governed by _____ law, which relates to photon energy.
18. Thermionic emission involves heating the metal until the electrons have enough energy to escape the _____.
19. _____ **emission** requires that the metal be at room temperature but under a strong electric field.
20. The four types of electron emission are thermionic, field, photoelectric, and _____ emission.

These questions are directly based on the content of the "Methods of Electron Emission" document.