

NAN 242

Quiz 2 - Sample Questions

1. What are the two key physical processes that are used in sputtering?
2. What is a plasma? How can it be created?
3. Why wouldn't you want too low a pressure in a plasma?
4. List the basic steps in sputtering.
5. Draw a typical DC sputtering chamber and identify the components.
6. Why doesn't DC sputtering work for an insulating film? How do you overcome this?
7. How does magnetron sputtering improve sputtering efficiency?
8. What are the 5 key parameters to control in sputtering?
9. Draw a simple CVD reaction chamber and identify the processes.
10. What are the two growth types in CVD?
11. Which of them is more suitable to epitaxial film growth?
12. Describe the important aspects of a tube CVD reactor.
13. What are the advantages of LPCVD?
14. What are the 6 steps of thin film growth?
15. Which growth mechanism is most suitable for uniform film growth?
16. Describe Ostwald Ripening.
17. If the substrate temperature is a tenth of the melting temperature of the substrate, what would the resulting film look like?