

Chemistry Interview Questions

1. Why does iron rust and how can rusting be stopped?
2. How does blood maintain its pH?
3. Can you describe the bonding in benzene?
4. What is the concentration of water?
5. What issues might there be if you wanted to create a metallic oxide that has good conductive properties but is also transparent?
6. Why don't fish freeze?
7. How does a glow-stick work?
8. How many molecules are there in a glass of water?
9. Why do we blow on soup to cool it down?
10. Why are explosions a risk in flour mills? What stops bags of flour exploding in the kitchen?
11. How are organic mechanisms classified? Can you give an example of a radical mechanism?
12. Why does the peroxide O-O bond break to give radicals?
13. Does it take longer or shorter for an egg to boil on Mt. Everest compared to at sea level?
14. Nitrogen monoxide is a radical. Where does the unpaired electron sit?
15. Can you draw the structure of the following molecules: carbon dioxide, hydrazine and nitrogen monoxide? What is hydrazine used for?
16. How many different molecules are made from six carbon atoms and twelve hydrogen atoms?
17. How many atoms are present in a Brussels sprout?
18. How many grains of sand are there on Earth?
19. Why does the boiling point of water rise as salt is dissolved in it?
20. What makes drugs physiologically active?
21. What makes some chemicals explosive?
22. How would you measure pH if I told you how many hydrogen ions there were?
23. A container with liquid nitrogen is left in a laboratory, and its temperature is being recorded over a long period. The recorded temperature shows variations. Why?
24. What volume of wine can be drunk to reach the legal concentration of alcohol in the blood for driving?