

## Thermal conductivity (Principle of Exp.)

1. What is the aim of this experiment?
2. What is thermal conductivity?
3. What is bad conductor explain?
4. What is Lee's apparatus?
5. What is Lees method?
6. What is specific heat?
7. What is the SI unit of thermal conductivity?
8. What is Heat conduction?
9. What is temperature gradient?
10. What is convection?
11. What is radiation?
12. In this experiment, where is conduction occurred?
13. In this experiment, where is convection occurred?
14. In this experiment, where is radiation occurred?
15. What is poor conducting material?
16. What is the formula used in this experiment?
17. What is conductor?
18. Difference between good conductor and bad conductor.



19. What is Seeley's apparatus?
20. In which types of material conductivity is measured by using Seeley's apparatus?
21. Difference between Lee's apparatus and Seeley's apparatus.
22. What is Wien's constant, how is it measured?
23. What is least count, how is it measured?
24. Which parameters are constant in this experiment?
25. Which parameters are variable in this experiment?
26. Define dependent of thermal conductivity?
27. Explain thermal conductivity depends on the nature of the material.
28. In this experiment, why is temperature increasing?
29. Is thermal conductivity increasing, by increasing temperature?
30. What is heat transfer?
31. How many types of heat transferring processes?
32. What is Fourier's law of heat conduction?
33. Write down the exact value of specific heat (brass).
34. Write down the unit of specific heat.
35. Write down the thermal conductivity of the bad conductor.
36. Explain the internal case of a bad conductor.
37. Explain the heat flow direction in this experiment.
38. Write down the dimension of thermal conductivity.



Limitations of this experiment. How error calculate, process of reducing error.

39. What is thermal Equilibrium?
40. What is the main purpose of this experiment?
41. Write down the heat equation of this experiment?
42. Write down the temperature vs time curve, in this exp.
43. Draw the ~~test~~ apparatus and point out, radiation, conve
44. What is 1st and 2nd slab in this exp.
45. Write some physical significance of this exp.
46. Write down the zeroth law of thermodynamics.
47. Does Newton's law of cooling hold for any difference of temper

### Thermocouple/Thermoelectric power

1. What is the aim of this experiment?
2. What is thermocouple?
3. Write down the principle of thermocouple?
4. What is thermoelectric sensor?
5. What is thermoelectric power?
6. What is calibration curve?
7. What is temperature?
8. What is unknown resistance temperature?
9. Why difference metals are added in a thermocouple?
10. What is thermometer?
11. Write down the principle of thermometer.
12. What is thermoelectric effect?
13. How many types of thermoelectric effect?



Limitations of thermocouple, how to remove errors of this  
Exp. discuss.

14. Which effect applied in this experiment?
15. Explain seebeck effect?
16. What is hot junction?
17. What cool junction? } indication.
18. Explain thermoelectric effect.
19. What is thermoelectromotive force?
20. Write down the equation of thermoelectric power.
21. What is multimeter?
22. How electric voltage is generated across the thermoelectric circuit?
23. ~~23.~~
24. Write down the exact value of thermoelectric power.
25. Write down the calibration curve.
26. What is calibration?
27. What is the unit of thermoelectric power?
28. When same metal used in thermocouple, what is occur?
29. Which parameters are used as variable in this exp?
30. What is measurement junction?
31. What is reference junction temperature?
32. Write down the temperature measuring instrument
33. Why we can use thermocouple for measuring temperature? what is thermal E.M.F.
34. ~~34.~~
35. physical significance and advantage of thermocouple