

Type: MCQ

Q1. Which radiation is used to irradiate sample molecules to form corresponding ions in mass spectrometry?

1. Microwave
2. Radiowave
3. No radiation
4. Ultra violet rays

Q2. _____ is an example of gas phase sources used in mass spectrometry.

1. Field desorption
2. Electron impact
3. Plasma desorption
4. Electrospray ionization

Q3. In field ionization sources microscopic carbon dendrites are formed by pyrolysis of _____.

1. Acetonitrile
2. Butanedinitrile
3. Benzonitrile
4. Butanenitrile

Q4. Metastable ions are caused due to spontaneous decomposition of ion in _____ during their passage through spectrometer.

1. Mass analyzer
2. Ion source
3. Inlet
4. Transducer

Q5. When the scattered radiation is of same frequency as that of the excitation radiation, the line obtained is called as _____.

1. Raman line
2. Stokes line
3. Anti-stokes line
4. Rayleigh line

Q6. _____ lines are more intense than stokes line in Raman spectroscopy.

1. Raman line
2. Anti-stoke line
3. Rayleigh line
4. Larmor line

Q7. At high temperature intensity of _____ line increases.

1. Stokes line

2. Antistokes line
3. Rayleigh line
4. Larmor line

Q8. _____ Interface is used in TG-FTIR to connect both the techniques.

1. Capillary inlet
2. Jet reactor
3. Jet separator
4. Light pipe

Q9. _____ technique is useful for determining nature and amount of volatile product during thermal analysis.

1. DTA
2. DSC
3. TG-DTA
4. EGA

Q10. In DSC sample and reference are placed in _____ condition.

1. Humid
2. Identical
3. Gaseous
4. Non identical

Q11. Which of the following is a correct statement?

1. DCS curve depends on size and volume of sample
2. DCS curve depends on size and temperature of sample
3. DCS curve depends on size and concentration of sample
4. DCS curve depends on size and shape of sample

Q12. TGA is applicable for _____ samples only.

1. Solid
2. Liquid
3. Gaseous
4. Both solid and liquid

Q13. In DTA exothermic peaks gives idea about _____.

1. Physical process
2. Fusion process
3. Chemical process
4. Change in crystallinity