

ANALYICAL SPECTROSCOPY

| Item Text | Option Text 1 | Option Text 2 | Option Text 3 |
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| What is disadvantage of radio active source used x ray analysis | high intensity radiation | required large space | continously emitted radiation |
| Balanced filter method is used in? | EXAFS | Wave Method | wave length dispersive devices |
| Radiation in the x ray region can be emitted from radioactive sources by ... methods | electron capture | gamma emission | beta emission |
| Gamma emission is caused by transition between | electron level | nuclear levels | vibrational level |
| Alpha particle is a | argon nucleous | hydrogen nucleous | helium nucleous |
| Beers law in x ray absorption shows by Equation | $m=mer$ | $m=mrt$ | $m=mrj$ |
| Energy dispersive device is works on | $E=hv$ | $E = cmv$ | $E = Xuv$ |
| Photo cathode is used in which of the following detector | scintillation | gas ionization | semiconductor |
| K Caputre process means | electron captured by K shell | K shell captured M shell electron | K shell electron captured by nucleous |
| Energy absorbed by the atom is equal to | kinetic energy of ejected electron | potential energy of form ion with vacant shell | kinetic energy of ejected electron and potential |
| Dispersive device in X ray absorption spectroscopy is used for | selection of monochromatic radiation | selection of polychromatic radiation | selection of balanced energy source |
| In x ray absorption spectroscopy two filter that are used to | isolate analyte at markable edge | isolate wavelength at the absorptive | isolate spectra of molecules |
| In ESCA analyzer analyzes | kinetic energy | difusion energy | recoil energy |
| Which of the following analyzer is used in ESCA | Retarding potential | Magnetic field | Spherical electrostatic |

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| In electrostatic field analyzers | inner sphere is positive and outer sphere is negative | inner sphere is negative and outer sphere is positive | both inner sphere and outer sphere is positive |
| The KLL process deals with | Spin electron spectroscopy | PIXE | Auger Spectroscopy |
| The source is used in Auger electron spectroscopy is | electron gun | proton gun | neutron gun |
| UPS deal with | inner shell | inner orbitals | valence orbitals |
| Filler gas used in UPS source lamp | Ar | Kr | He |
| UPS most oftenly used to study | Gaseous molecules | Solid molecules | Liquid molecules |

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| Option Text 4 |
| Very high energy radiations |
| Energy dispersive device |
| Electron capture, gamma emission, beta emission |
| Rotational level |
| helium atom |
| $m = m_{l,r}$ |
| $E = 2n$ |
| Fluorescence |
| K shell eject electron to conduction band |
| Energy loss by electron |
| Selection of wavelength |
| Isolate wavelength absorbed by sample |
| none of the above |
| All of the above |

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| both inner sphere and outer sphere is negative |
| PMR |
| atom gun |
| inner core |
| All of the above |
| Vaporized molecules |