



P6 Atomic and nuclear physics

P 6.1 Introductory experiments

- P 6.1.1 Oil-spot experiment
- P 6.1.2 Millikan experiment
- P 6.1.3 Specific electron charge
- P 6.1.4 Planck's constant
- P 6.1.5 Dualism of wave and particle
- P 6.1.6 Paul trap

P 6.2 Atomic shell

- P 6.2.1 The Balmer series of hydrogen
- P 6.2.2 Emission and absorption spectra
- P 6.2.3 Inelastic electron collisions
- P 6.2.4 Franck-Hertz experiment
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- P 6.2.6 Electron spin resonance (ESR)
- P 6.2.7 Normal Zeeman effect
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P 6.3 X-rays

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- P 6.3.2 Attenuation of x-rays
- P 6.3.3 Physics of the atomic shell
- P 6.3.4 X-ray physics with the x-ray apparatus

P 6.4 Radioactivity

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- P 6.4.2 Poisson distribution
- P 6.4.3 Radioactive decay and half-life
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P 6.5 Nuclear physics

- P 6.5.1 Demonstration of particle tracks
- P 6.5.2 Rutherford scattering
- P 6.5.3 Nuclear magnetic resonance (NMR)
- P 6.5.4 Alpha spectroscopy
- P 6.5.5 Gamma spectroscopy
- P 6.5.6 Compton effect

Physics



P6 Atomic and Nuclear Physics

P 6.1 Introductory experiments

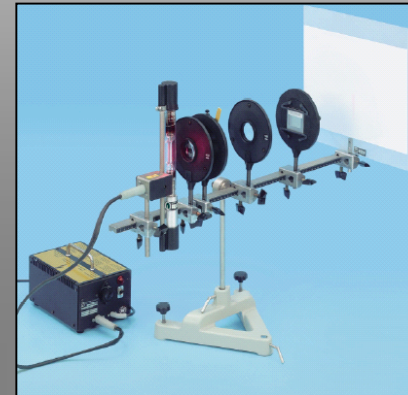


Determining the electrical charge of the electron after Millikan

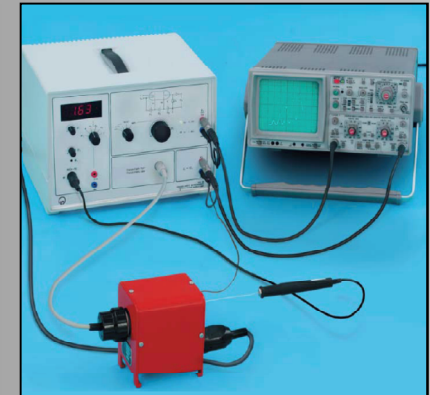


Dualism of Wave & Particle

P 6.2 Atomic shell



The Balmer Series of Hydrogen



Franck-Hertz experiment with mercury – recording with the oscilloscope

P 6.3 X-rays



Compton effect on X-rays

P 6.4 Radioactivity



Radioactive Decay & Half Life

P 6.5 Nuclear physics



Gamma spectroscopy