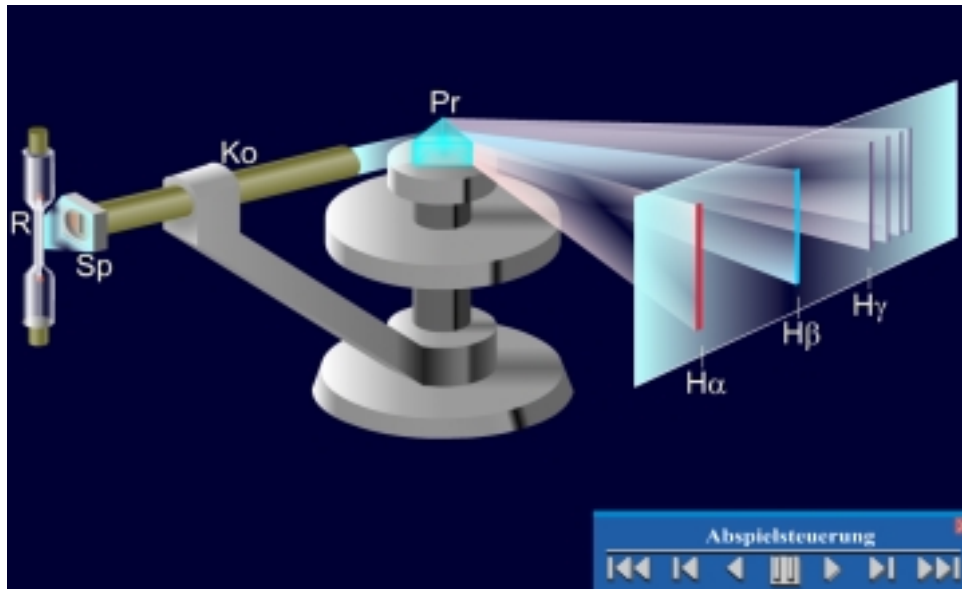


Spectrometer - Design of a simple spectrometer, showing a line spectrum



Attention: To see the animation, you need a player of macromedia (Flash5)

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Explanation

Key to diagram

R – tube with glowing gas

Sp – plate with slit to admit light

Ko – collimator; Pr – glass prism

The light emitted by the gas atoms excited to luminescence is separated into its spectral components in the prism by diffraction and dispersion. The illustration shows a line spectrum typical of gases. Spectrometers of this type can be used for identifying the elements present in an unknown substance. The spectral lines betray each element continued in the substance.

(see also our animation "Spectral series of hydrogen")