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US 20130126727 A1 · Jozwiak C, et al., "A high-efficiency spin-resolved photoemission spectrometer combining time-of-flight spectroscopy with exchange-scattering polarimetry" In: Review of Scientific Instruments, 2010, May 24, Vol. 81, No. 5, ISSN: 0034-6748. · Jozwiak C, "A new spin on Photoemission Spectroscopy", University of California, Berkeley, 2008
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(57) Abstract:

The present invention relates to a method for determining at least one parameter related to charged particles emitted from a particle emitting sample (11), e.g. a parameter related to the energies, the start directions, the start positions or the spin of the particles. The method comprises the steps of guiding a beam of charged particles into an entrance of a measurement region by means of a lens system (13), and detecting positions of the particles indicative of said at least one parameter within the measurement region. Furthermore, the method comprises the steps of deflecting the particle beam at least twice in the same coordinate direction before entrance of the particle beam into the measurement region. Thereby, both the position and the direction of the particle beam at the entrance (8) of the measurement region (3) can be controlled in a way that to some extent eliminates the need for physical manipulation of the sample (11). This in turn allows the sample to be efficiently cooled such that the energy resolution in energy measurements can be improved.

