Development of the new type PES for SPLEEM

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Spin polarized low energy electron microscopy is a method which have dynamic observation of the structural magnetic domain in real time.

A high luminance electron beam is made by irradiating the ~10μm diameter laser spot from the back by using negative electron affinity photocathode of the ~80% spin polarization degree. The accelerating voltage of the distance 4mm between the photocathode and anode-electrode is 20kV. The vacuum level around the photocathode is ~10^{-10} Pa. It reports on the progress report of this PES system.

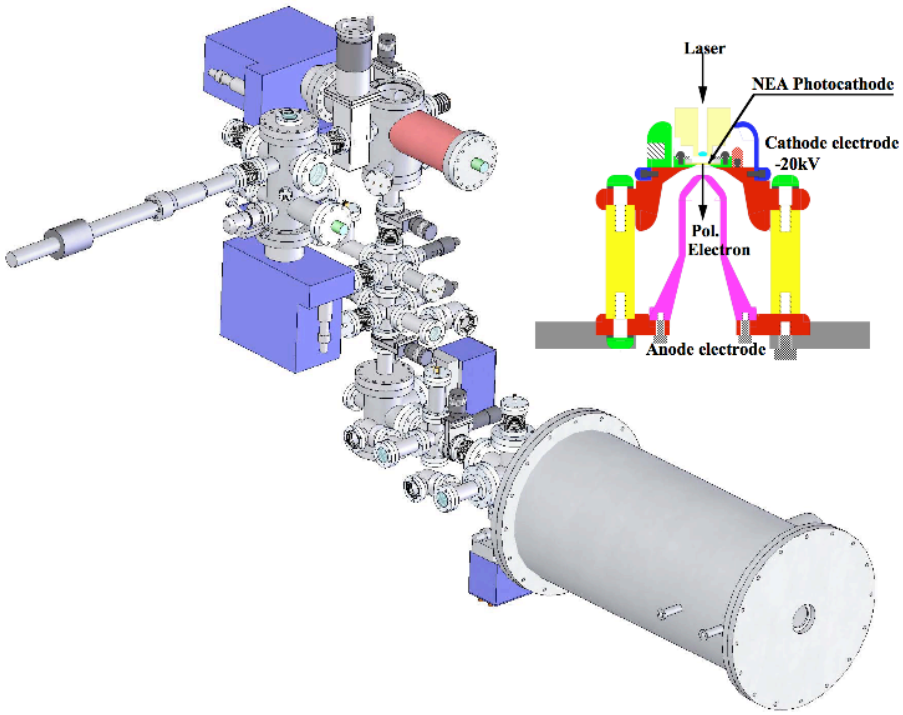

FIGURE The Polarized Electron Source for SPLEEM