

## Applications of Spectromicroscopy at ELETTRA

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The SPELEEM (spectroscopic photoemission and low energy electron microscope) is a multimethod electron microscope which combines low energy electron microscopy (LEEM) with photoemission electron microscopy (PEEM) using synchrotron light. The microscope can be equipped with an imaging electron energy analyser. For a prototype system at ELETTRA a spatial resolution in photoemission mode of 22 nm and an energy resolution of better than 0.5 eV have been demonstrated. The present status of the nanospectroscopy project SPELEEM at ELETTRA will be described. Recent applications of this method to current problems of semiconductor research (nanocrystals, nanolithography) will illustrate its potential.