# Microscopy in Slovenia: From Beginnings to Today

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Light microscopy techniques were the first microscopy techniques that were employed already in mid-20th century in Materials Science and in Life Science research in Slovenia. In Materials Science the applications were mostly focused on observation of metalographically prepared surfaces of metals, alloys and ceramics, while in Life Sciences optical microscopy was used for visualization of diverse biological and human tissue samples. The idea of visualizing atoms directed scientists at the Cambridge University to construct the microscope with higher resolution based on wavelength properties of electrons. The first commercial electron microscope in Europe was constructed in 1939 while in Slovenia it was designed by pioneering work of Aleš Strojnik in 1955. First home-made 50 kV transmission electron microscope with resolution 5 to 2.5 nm was operational in spring of 1955 while the 50 kV LEM-2 version was installed at the Institute of Metallurgy in 1958. However, the first electron microscope in Slovenia was already installed one year earlier, i.e. in 1954 at the Nuclear Institute Jožef Stefan at the Department for Electron Microscopy. This first installation presented an important milestone for electron microscopy in Materials Science in Slovenia. Parallel, development of techniques for preparation of human tissue samples for Life Science transmission electron microscopy was a great challenge for researchers at the Biological Institute at the Medical Faculty which resulted in installation of first transmission electron microscope for Life Science electron microscopy at the same institute in 1965. Since then various electron microscopy techniques as well as various optical microscopy techniques have been intensely used in R&D work of many Slovenian researchers. In this joint contribution, the authors will describe the historic overview of microscopy, and especially electron microscopy, in Slovenia for Materials Science as well as for Life Science from early beginnings to today.