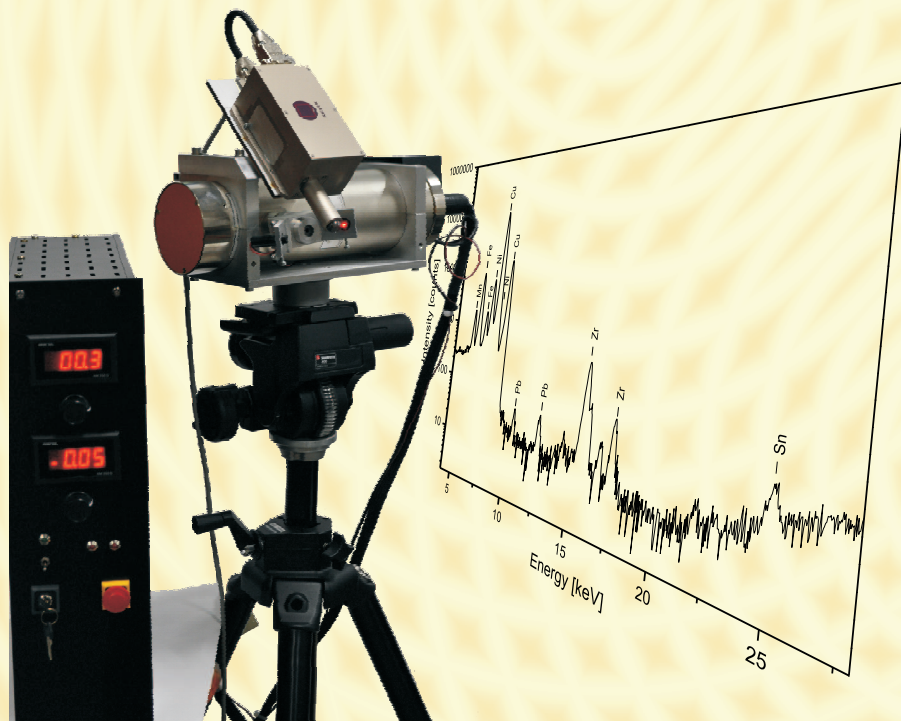




**Department of Photophysics
Polish Academy of Sciences
The Szevalski Institute of Fluid-Flow Machinery**

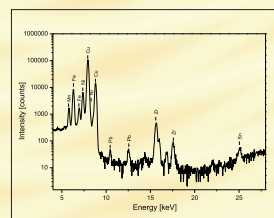
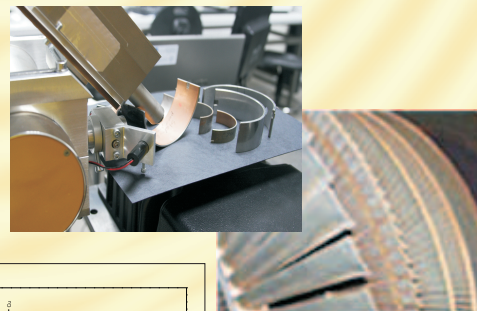
Fiszera 14, 80-231 Gdańsk, Poland
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Analyses

Industry

Rapid and precise detection of impurities.

Process control and monitoring of the chemical composition during various production stages.



Portable XRF spectrometer

Applications

- non-invasive and non-contact determination of the elemental composition of materials and objects
- analysis of materials for industry, environmental and forensic studies, artwork conservation, etc.
- materials: metals and alloys, glasses, ceramics, pigments, etc.

Dedicated instrument versions on request

Technical data

- focus / spatial resolution: 4; 3; 2 mm; selected by collimators
- penetration depth ~ 10- 90 μm , depends on material
- detection range: K (19) - U (92) and Na (11) - U (92) with He shield
- energy resolution - 155 eV for line 5.9 keV Mn K_{α}
- spectrum acquisition time ~ 120 s
- excitation: X-ray lamp (anode - Wo; U_A : 20 - 60 kV)
- detector: SDD, cooled thermoelectrically, laser actuator
- sensitivity: 60 - 150 ppm

Investigation of historical objects

Determination of the elemental composition of historical materials, pigments etc.; high sensitivity allows the analysis of trace amounts of substances on the surface.

