

Analytical metallographic systems OMOS M series





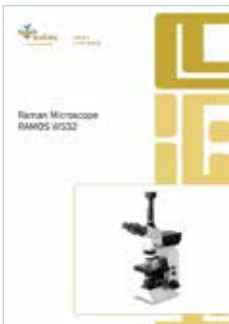
Ostec Instruments produces and offers hi-tech innovative scientific and analytical equipment.

Our mission is to be a company that finds, selects, protects and develops cutting-edge ideas to create new products and technologies and deliver technological progress. That is why the symbol of our company is a growing sprout.

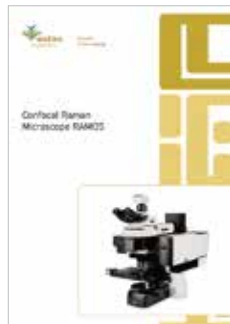
We provide complete solutions for our clients: the best equipment to meet customer's requirements, deep knowledge of customer's applications, qualified and reliable maintenance support.



OUR other products:



Raman Microscope
RAMOS W532



Confocal Raman
Microscope RAMOS



Optical components
OCOS



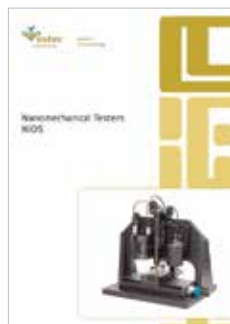
Laser elemental analyzer
LIOS 500N



Vibration Control
Solutions AVOS



Optical emission
spectrometer for metal
and alloy analysis SEOS 02



Nanomechanical
Testers NIOS



Accessories for Scanning
Probe Microscopes



FTIR spectrometers
and microscopes IROS



Portable Raman
analyzers RAMOS

OMOS M series

Designed by researchers for researchers.

OMOS M series analytical metallographic systems make perfect solution for the microstructure of materials automatic analysis. When you image and analyze samples, you are often faced with complex and interrupted processes that can make tasks take much longer than you want them to. OMOS M series microscopes have vast experience in bringing together optical precision, automation, analytical power and data management via workflow-oriented system. The new M series analytical metallographic system product range takes this one step further, offering peerless flexibility and ease of use that can make any task a controlled workflow.



Ostec is dedicated to ensuring that the best solutions are available for your work, from microscopes and digital cameras to software and data storage. OMOS M series microscopes bring all of our experience to you, giving you control over every aspect of your hardware, workflow, measurements and data management. Our mission is your success both now and in the future. Only three components for the complete solution.

Hardware – Microscopy M500 or M1000

OMOS M series microscopes specifications:

	M500	M1000
Optics	Infinity corrected, PLAN APO	
Additional zoom	-	1x-1.5x
Light source	LED 3 W, 12 V	100 W Hg, 12 V
Focusing	Manual, coarse and fine coaxial handle. Focus stroke 7 mm, step 0.25 mm	Manual, coarse and fine coaxial handle. Focus stroke 7 mm, step 0.08 mm
Observation tube	Widefield (20 mm), trinocular	Widefield (22 mm), trinocular
Observation method	Brightfield, simple polarized light	Brightfield, darkfield, simple polarized light, DIC
Illuminator diaphragm	FS/AS manually controlled	FS/AS manually controlled
Revolving nosepiece	Manual, quadruple for BF	Motorized, quintuple for BF/DF
Stage	Right handle stage (X/Y stroke: 60 x 40 mm)	Right handle stage (X/Y stroke: 25 x 25 mm), rotation $\pm 15^\circ$
Image recording	C-mount, video camera, digital camera	C-mount, video camera, digital camera
Weight	15 kg	34 kg
Dimensions	500(L)x300(W)x380(H) mm	750(L)x350(W)x420(H) mm
Power requirements	200 W, 220 V/230 V, 50/60 Hz	

Hardware – Digital Camera

Digital CCD color camera for speedy pixel-by-pixel image stitching provides fast video image obtainment. Stitch your field of view manually without using motorized stages and z-modules.

Extremely low-cost solution, incredibly quick and genuinely excellent result.



Specifications	
Sensor	CMOSIS CMV4000
Sensor size	1"
Resolution	2048 x 2048
Pixel size	5.5 μm
FPS	90
Interface	USB 3.0

OMOS Software

Dynamic interface

Creating an efficient workflow requires careful definition of the tasks and tools at each stage. With the OMOS Software platform's dynamic GUI the same is true – the tools you need for each stage are clearly available, without clutter or the need to search.



Blank canvas

It is your workflow, so with OMOS Software you can have it your way. Within each layout you can specify how many tools and controls are shown on screen, eliminating unnecessary controls and placing the ones frequently used exactly where you want to have them. Our expertise is in your hands. Ostec has brought its imaging and analysis expertise directly to you via the unique workflow management concept. This idea guides you easy, step by step through tasks such as multiple image alignment, phase analysis, report generation, as well as complex processes utilizing our microscopes.

The workflow management concept ensures there are no mistakes, just reproducible results. Integration with Microsoft Windows and Microsoft Office software programs, rather than reinventing key processes. As a result you will feel "at home" using OMOS Software, even for complex processes such as complex calculations and statistics, which are completed directly in Excel, or for report template generation in Word.

Modular structure of the software allows to perform image analysis for different market sectors: metallurgy, machine building, mining, chemical, nuclear industry, microelectronics and research institutes in various software and hardware systems, to study samples microstructures for compliance with different standards (GOST, ISO, ASTM, DIN, internal company standards, etc.).

Software additional modules:

- OMOS Base – basic version of the software
- OMOS Castiron Module – cast iron control
- OMOS Steel Module – steel and alloy samples control
- OMOS Biomedicine Module – biomedicine control
- OMOS Microelectronics control

OMOS Software includes metallographic methods for steel, non-ferrous metals and alloys analysis:

- Grain size in steels and alloys;
- Non-metallic inclusions in steels and alloys;
- Graphite in cast iron analysis;
- Relative ferrite and perlite content;
- Martensite needles length measurements;
- Intergranular corrosion analysis;
- Methods of comparison with standards, etc.

Ostec is proud to create a unique method of analysis for its every customer.

Petrography:

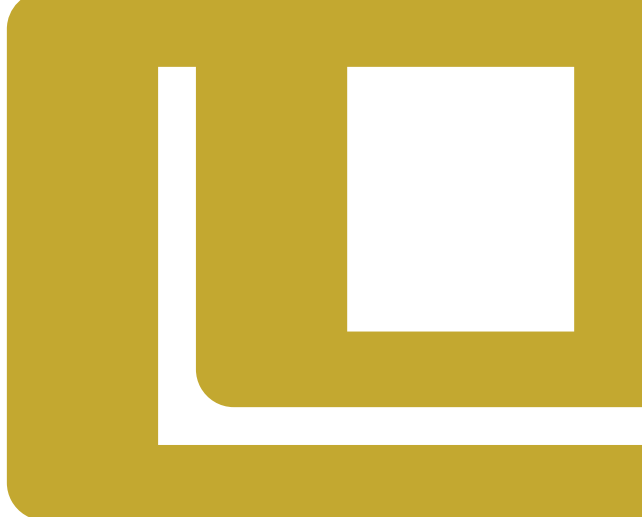
Modules for automated analysis of rocks, ores, products of enrichment and reprocessing, cement clinker, kern. Automatic quantitative measurement of mineral composition, particle size distribution, ore components and ore concentrates disclosure degree to classify the main components with the classes list release (quartz, feldspar, muscovite, biotite, rock fragments, carbonate cement, etc.).

Microelectronics:

Semiconductor wafers control and metrology, geometric measurements to create a panoramic image with the increased depth of focus and the application of annotations.

Biomedicine:

Automated histological, cytological, dermatological research.

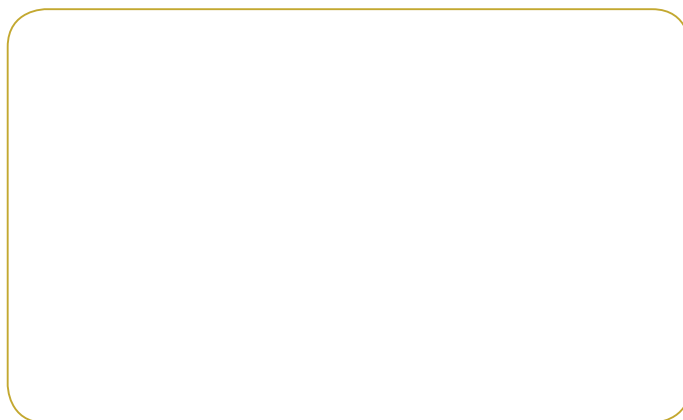




future's
in the making

Analytical metallographic systems OMOS M series

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