

KOS

The microwave multifunctional tissue processor
you were waiting for.



- Tissue processing
- Decalcification
- Special stains
- Fixation
- Gross hardening
- Antigen retrieval

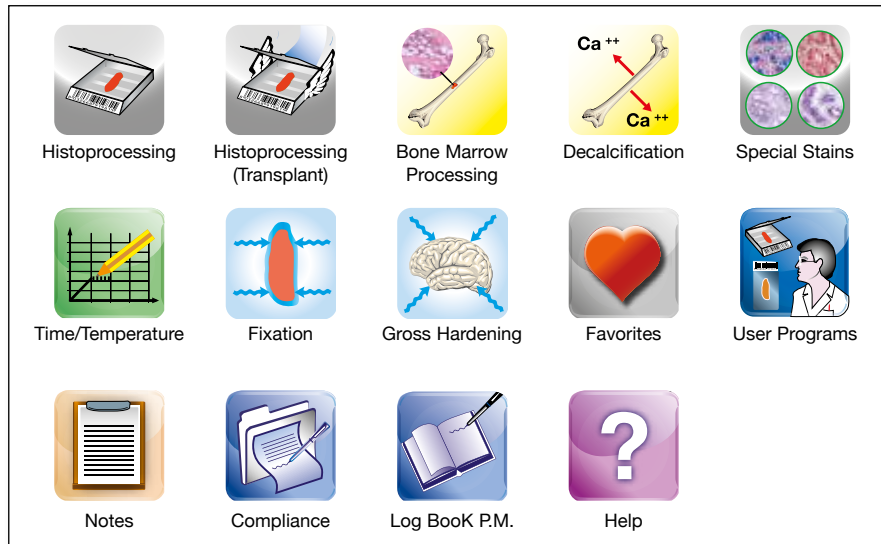
In a fraction of the time



MILESTONE
H E L P I N G
P A T I E N T S

KOS* Smart and Fast

*KOS (Greek island).
Home of Hippokrates,
"Father of Medicine".



Rapid multifunctional microwave tissue processor.

A state-of-the-art, multifunctional microwave tissue processor, the KOS is ideally suited as a complement to existing capabilities found in histology laboratories, where the multitasking nature of the instrument can enhance and accelerate many of the typical applications encountered.

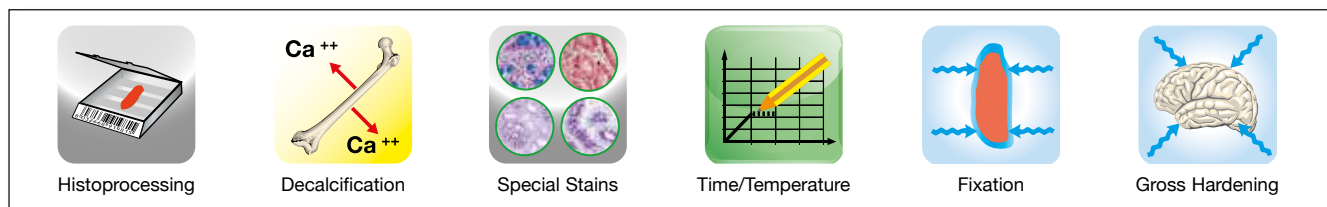
SMART. Icons driven.

FAST. Factory prestored optimized, full documented protocols for rapid, microwave enhanced procedures. No calibrations required. Just plug-in and process.

RELIABLE. Sensors controlled for protection of your precious specimens.

FLEXIBLE. User defined customized programs can be created and added to a most used favorites list for quick access, as required for meeting the needs of each user laboratory.

Multifunctional. One Unit. Six Major Applications



FULL COMPLIANCE TO CAP – C.L.S.I. GUIDELINES

The KOS tissue processor will enable the laboratory manager to fulfill the requirements set by the C.L.S.I. and CAP inspection guidelines. The ideal substitute for the "kitchen type" microwave oven utilized in many histology laboratories.

C.L.S.I. (FORMERLY N.C.C.L.S.) GUIDELINES.

REFERENCE: *Clinical and Laboratory Standards Institute. Microwave Device use in the Histology Laboratory; Approved Guideline.*

C.L.S.I. document GP28-A (ISBN 1-56238-563-1).

CAP GUIDELINES. REFERENCE: *Commission on laboratory accreditation. Anatomic pathology checklist - Rev. September 2007*



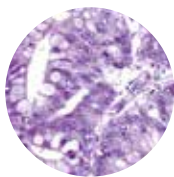
Rapid tissue processing

Same day results for all tissue types.

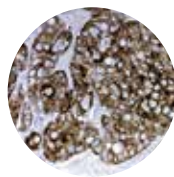
- From 1 to 45 cassettes
- Ideal for transplant centers (Urgent biopsies)
- Safe. No xylene
- No proprietary reagents (Ethanol – isopropanol only)

HIGH QUALITY SLIDES

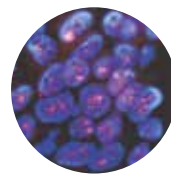
No compromise in regard to morphology and staining expression. Staining properties of microwave processed specimens are excellent for **H&E** routine staining, **HC**, **IHC**, **FISH**. In a fraction of the time.



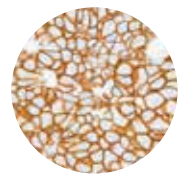
Colonic biopsy, microwave processed in 30 minutes. H&E, x 400.



Adenocarcinoma, microwave processed Cytokeratin CAM5.2, x 400.



Breast cells HER2 amplification detection by FISH processed by microwaves. Red-labeled HER2 probe, x 800.



Breast cells HER2 amplification detection by IHC, processed by microwaves. Hematoxylin counterstain, x 400.



FAST. UNMATCHED TISSUE PROCESSING TIMES.

30 minutes

for transplant biopsies including fixation.

30 minutes

for 1.5 mm biopsies. Add 10 minutes to include fixation.

80 minutes

for 3 mm biopsies. Add 25 minutes to include fixation.

EASY. ICONS DRIVEN MENU.



1) Select thickness



2) Select number of cassettes



3) Select reagents



4) Press **GO**.



5) Press **START**. That's all



Time left will be shown on the terminal



Bone Marrow processing

Same-day diagnosis for bone marrow trephine biopsies. Will this help your patient?

DECALCIFICATION + PROCESSING IN LESS THAN 3 HOURS !

An ideal application of the technology and multifunctionality of the KOS. Optimized decalcification and processing protocols are factory stored.

EDTA.

Decalcification: 80 minutes

Processing: 60 minutes

Total time: 140 minutes

FORMIC ACID (5%).

Decalcification: 20 minutes

Processing: 60 minutes

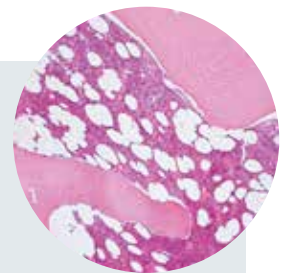
Total time: 80 minutes

FAST TURN AROUND TIME

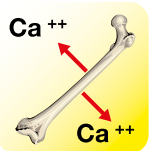


	Minutes	Temp.°C
Fixation in formalin:	10	50
Rinsing in tap water	10	
Decalcification (formic acid)	20	50
Rinsing in ethanol	2	
Tissue processing (Prowave)	15	
Impregnation in Wax	23	

Total time (minutes) 80



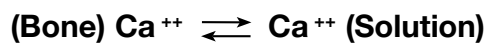
Bone marrow, EDTA, H&E x 100



Rapid Bone Decalcification

Up to 45 cassettes.

An excellent application for the KOS. The efficient stirring continuously keeps the bone surface in contact with “fresh” decalcifier, positively influencing the equilibrium:

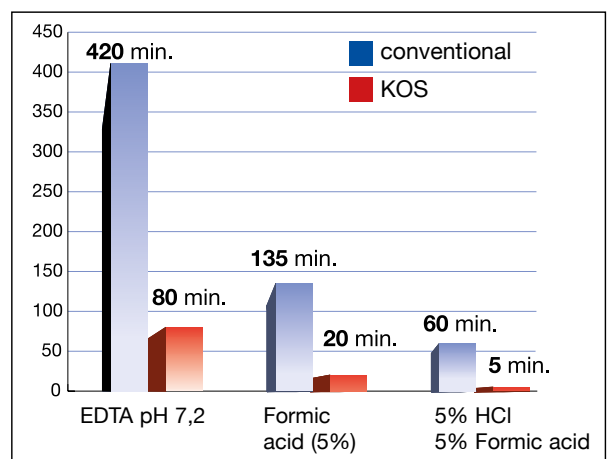


Hours, not days!

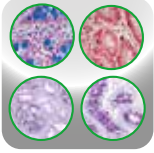


Simply select the temperature, the number of cassettes and the decalcifying solution.

Press GO 



CORE BIOPSY DECALCIFICATION TIMES (50° C)

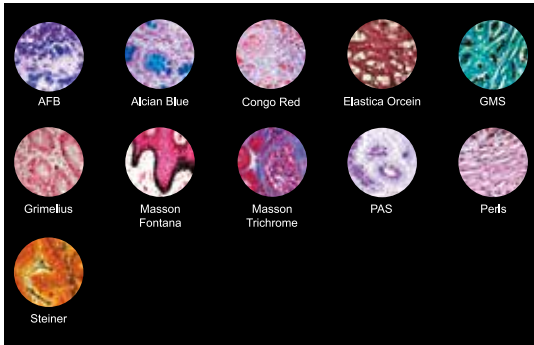


Special Stains

Up to 76% time saving for histochemical staining protocols

Several time consuming staining procedures are enhanced by microwave irradiation. Factory stored, optimized, step by step protocols for most common stains for 1-40 slides. Preset or customized programs guarantee operator independent, consistent results.

- No splashing, constant pH conditions
- Magnetic stirring for temperature uniformity along the entire length of the slides



Stains

GMS (Fungi)
GRIMELIUS (Agryrophil)
MASSON TRICHROME
MASSON FONTANA
PAS
ALCIAN BLUE
ZIEHL NIELSEN
ELASTICA (ORCEIN)
PEARLS IRON STAIN

Standard (minutes)	KOS (minutes)	Time Saving %	Staining intensity
130	25	76	Increased
65	13	72	Increased
120	32	70	Increased
80	19	70	Increased
50	21	50	Increased
34	13	61	Increased
39	11	61	Increased
30	7	62	Increased
21	8	46	Increased

^ Note: Times include non-microwave treatment steps



Select stains menu



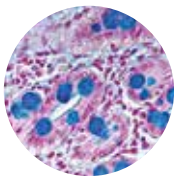
Select specific stain



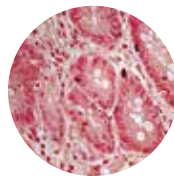
Follow the step by step screen indications



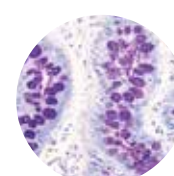
Microwave programs are pre-stored



Alcian Blue: Bowel biopsy, x 400.



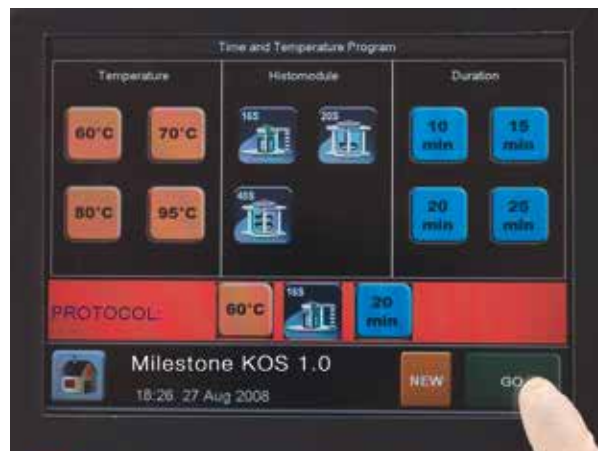
Grimelius Argyrophil cells in Duodenum, x 400.



PAS, stomach gland, x 400.



Time at temperature steps/Antigen retrieval



- 1 Select temperature
- 2 Select histomodule
- 3 Select time
- 4 Press GO.



User's programs can be easily set up and stored under "Favorites" for easy operation

KOS Packed with the latest microwave and sensor technology. Controlled by the most advanced, intuitive software.



USB port to upload-download data

Touch-screen, 8" color terminal

Removable, stainless steel tray for extra bench space

High definition color monitor

Connection to fume extraction system

Built-in regenerable charcoal filter

State-of-the-art safety

Microwave power is switched off if:

- 1 Cavity ventilation is compromised
- 2 Solvent in cavity is above threshold
- 3 Humidity in cavity exceeds set value
- 4 Microwave leak is detected

IR sensor with laser for temperature control

High definition, pin-hole TV camera, with autofocus

Software controlled stirring device

MILESTONE



HELPING PATIENTS

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UNI EN ISO 9001: 2008 / UNI EN ISO 13485:2012 CERTIFIED

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