



Leica EM STAIN

Automatic Section Stainer for Electron Microscopy

LEICA EM STAIN

The LEICA EM STAIN introduces an entirely new approach to staining of sections for electron microscopy. Within the sealed chamber of the LEICA EM STAIN system, ultrathin sections are automatically stained to yield high-contrast, precipitate-free results.

By staining up to 25 grids simultaneously, the EM stain both speeds up laboratory routines and eliminates the many tedious and time consuming tasks associated with traditional staining methods.

Because the stainer uses prepacked stains, there is no need to prepare toxic uranyl and lead solutions.

Ultrastain 1, 1H and 2 are vacuum-sealed to ensure precipitate-free and safe staining.

Easy to use

- The grids are inserted into the grid holder plate,
- The grid holder plate is then inserted into the stainer chamber
- The staining program selected and
- the "START" button pressed.

The stainer does the rest.

Microprocessor controlled the stainer automatically follows a pre-set staining cycle.

At the end of the cycle, an audible signal sounds to show that the staining is completed.

Use our well proven pre-set program – or set your own.

The stainer is programmed with a well proven staining sequence suitable for most applications.

For special staining requirements, however all parameters may be set by the operator.

- Rapid selection and entry of programs
- Design of loading jig ensures simple grid insertion.



Safe – no exposure to toxic solutions

Ultrastain 1, 1H and 2 are vacuum-packed stabilised solutions of uranyl and lead salts designed to give high-contrast and reproducible results.

By using these prepacked stain solutions in the sealed EM stain system, you avoid exposure to toxic uranyl and lead compounds – both during the preparation of the solutions and during the staining process itself. Effluents from the stain chamber are collected in sealed containers for safe disposal.

High contrast, reproducible results

For optimal contrast and reproducibility, the stainer grid chamber is filled with a series of standardised wetting, staining and rinsing solutions. Each solution is held in the chamber for a programmed length of time and at a microprocessor-controlled temperature.

Because the system is completely closed and the solutions vacuum-sealed, the stainer eliminates both precipitate formation and the risk of contamination.

Ecologic – economic – versatile

The stainer eliminates the wasteful application of reagents and the employment of high levels of manpower resources.

- Up to 25 grids
- Separation of waste for economic and ecological disposal, i.e. separate waste containers for Ultrastains and water.



Gridstainer – for reproducible, precipitate-free high-contrast double staining

Design and function

Reproducible, certifiable processing with output for printer to record staining cycle conditions employed is ensured by a reliable **microprocessor controlled stepping motor and ceramic pump.**

Exactly adjustable pumping volume with stain overflow/consumption adjustable. Other salient features include:

- Mains supply with built-in back-up to ensure integrity of samples and memory protection
- Modular construction for easy maintenance and service
- Stainless steel spill tray
- Program steps can be individually controlled from 1 second to 9 hours 59 minutes 59 seconds.
- The temperature programmed from RT to +60° C.
- Up to 10 programs may be stored.
- Any program sequence can be selected, reviewed and modified as required
- Improved programmable delayed start of program with input of date and time of endpoint.
- Programmable for wash and fill (WF) before start of staining cycle
- Program for shut down (WD) wash and dry
- Choice of STAIN concentration
- Connection for parallel printer (On line protocol).



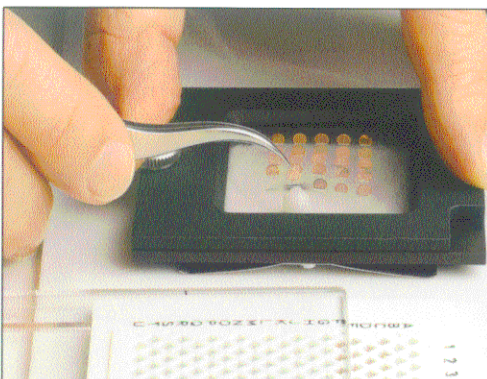
Grid box

The Leica grid box is the most widely used method for transporting grids in the electron microscopy laboratory. It contains indexed compartments for 100 grids and has a clear sliding cover. Each box is individually numbered for easy reference.

Specimen grids

Produced by an electrolytic process Leica specimen grids are made from high purity copper. Tubes contain 100 grids with 3 mm diameter. The range includes different mesh values and single hole grids, which are especially useful for mounting ribbons of serial sections.

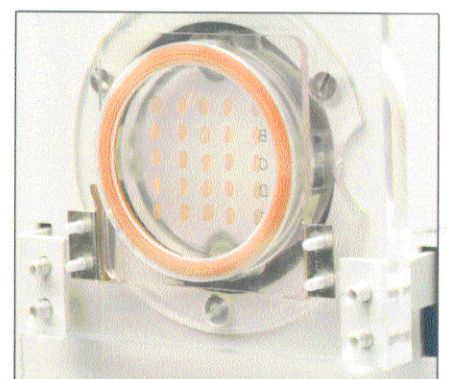
Using the loading station to insert grids



Inserting the grid support plate into the staining chamber



Staining chamber loaded with 25 grids ready to go.



Leica Microsystems – the brand for outstanding products

Leica Microsystems' mission is to be the world's first-choice provider of innovative solutions to our customers' needs for vision, measurement, lithography and analysis of microstructures.

Leica, the leading brand for microscopes and scientific instruments, developed from five brand names, all with a long tradition: Wild, Leitz, Reichert, Jung and Cambridge Instruments. Yet Leica symbolizes innovation as well as tradition.

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Specimen Preparation

We specialize in supplying complete solutions for histology and cytopathology.

Imaging Systems

With confocal laser technology and image analysis systems, we provide three-dimensional viewing facilities and offer new solutions for cytogenetics, pathology and material sciences.

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Innovative technologies in our surgical microscopes offer new therapeutic approaches in microsurgery. With automated instruments for ophthalmology, we enable new diagnostic methods to be applied.

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Our automated, leading-edge measurement and inspection systems and our E-beam lithography systems make us the first choice supplier for semiconductor manufacturers all over the world.