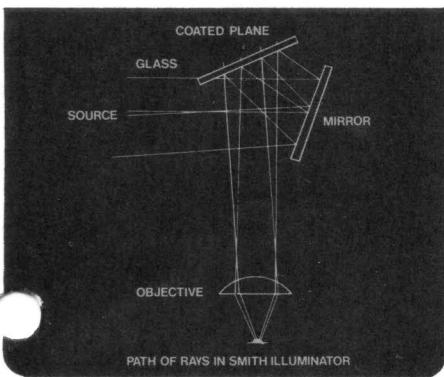
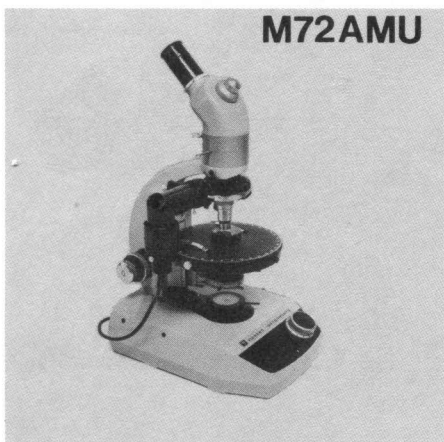
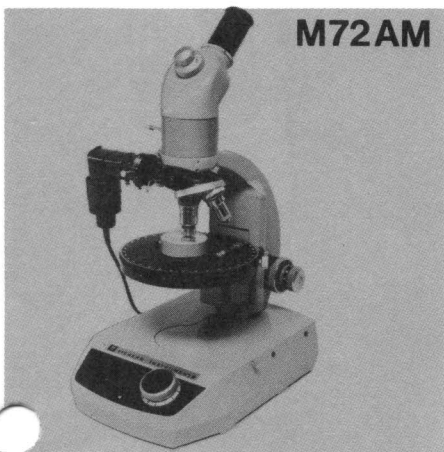
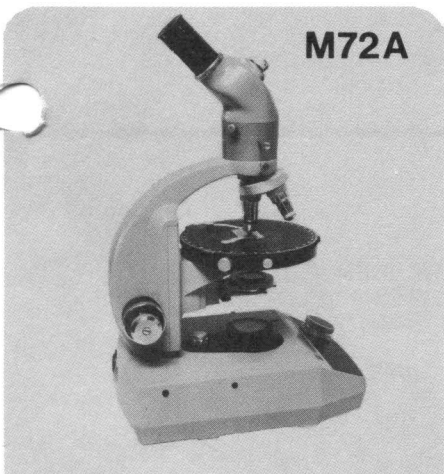


# Vickers

## M72A · M72AM · M72AMU INTERMEDIATE POLARIZING MICROSCOPE



Vickers Intermediate Polarizing Microscopes will give you outstanding optical performance, - achieved conveniently - on a quality-built instrument - at a sensible price. This new version of the Intermediate is supplied on the large M72 box base with built-in light source and variable transformer. Use of this base permits unlimited upgrading of Intermediate models to take all optical accessories, light sources and camera equipment offered with the Research M72 series.

Over a thousand of the Vickers Intermediate Polarizing Microscopes (transmitted light) are now in use in university, industrial and government laboratories in North America. They are fitted to satisfy all requirements for routine qualitative investigations and instruction in mineralogy, petrography and chemistry. The M72 modular design allows add-on of accessories at any time to achieve full research capability.

The M72AM Metalore Microscope for reflected light incorporates the patented Smith illuminator system - a fundamental optical advance, design per illustration, which produces uniform extinction over the whole field of view, - to give unequalled image contrast qualities. Specimens up to  $1\frac{7}{16}$ " in height can be examined on the M72AM.

Excellent optical performance in both transmitted and reflected light techniques is available at a surprisingly reasonable price on the Universal model M72AMU. Changeover from one mode of illumination to another is accomplished at the flick of a switch. The very complete Vickers catalog of petrological and mineralogical accessory equipment, makes it possible for M72AMU users to carry out a wide range of research and special investigations.

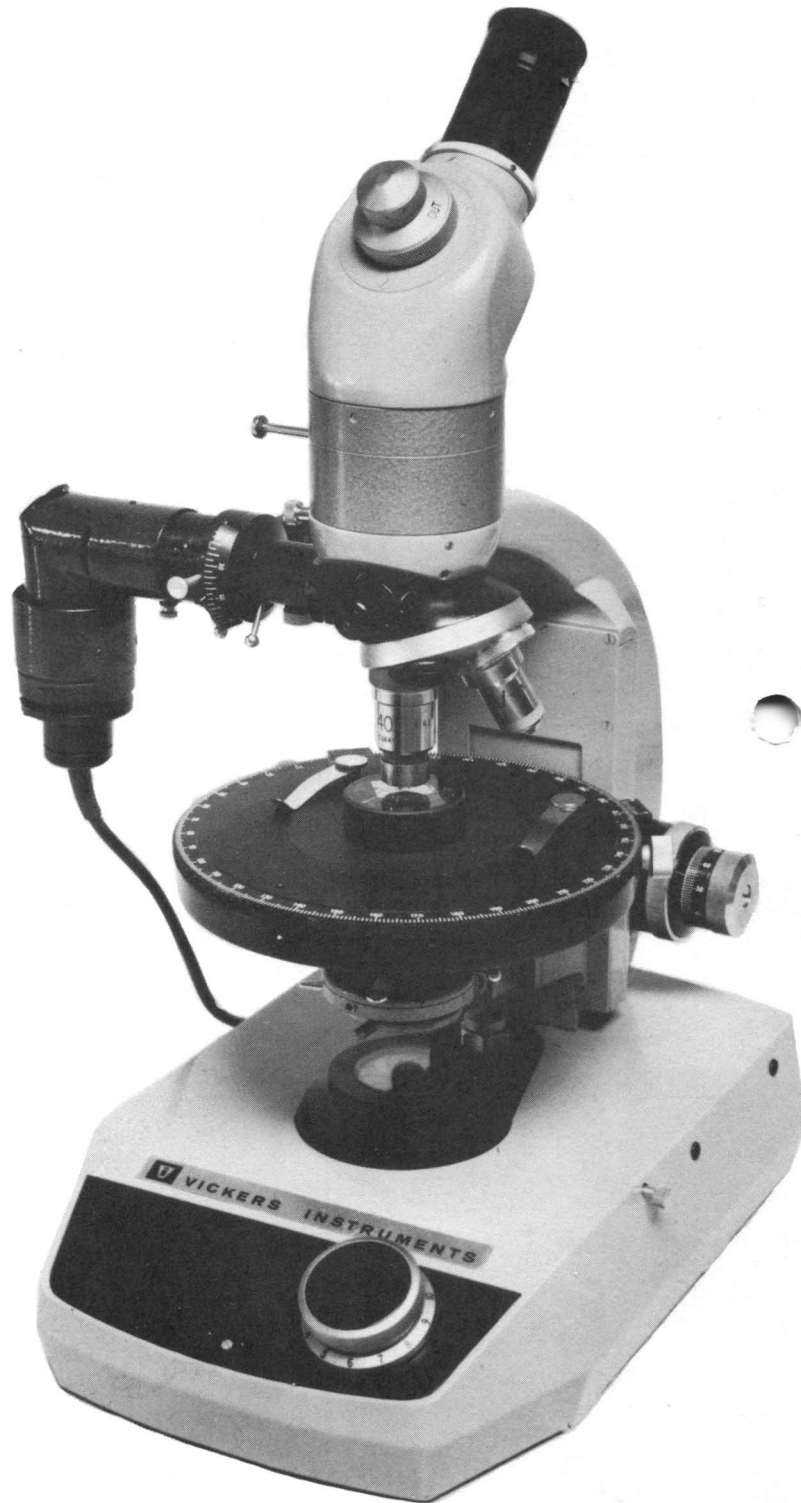
# SPECIAL FEATURES OF THE M72A POLARIZING SERIES

MICROSCOPE STAND is large and extradordinarily rugged in construction. The extra-wide ball bearing focusing slides ensure excellent rigidity. Concentric coarse and fine focusing control knobs are low-placed to give a comfortable working position. The fine adjustment is graduated in 2 micron increments. An intense Kohler illuminator with variable transformer and controls can be built into the large box base, eliminating the clutter of exterior lamp and transformer units.

BALL BEARING STAGE...is of a novel Vickers Instruments design in which the hardened steel ball tracks are produced by the same method used in making lenses, thereby achieving a similar precision. This gives the stage superior accuracy of rotation and a very free movement. The stage is of the centering type - the user will soon find that, considering the speed and ease of rotation, this centering procedure is faster (and more easily understood by students) than objective-centering systems which require small movements of individual lenses away from the true optical axis.

## ORTHOSCOPIC - CONOSCOPIC VIEWING

The M72A is ordinarily furnished with an inclined monocular body mounting on the analyzer body module and keyed to it for automatically correct orientation. This tube takes large diameter eyepieces (29.2mm) giving extra-wide fields of view with all objectives. A Bertrand lens is built into the body tube. This swings in and out easily upon rotation of a knurled knob. Mounted with the Bertrand lens is a pin-hole stop which serves



VICKERS M72AMU UNIVERSAL  
MICROSCOPE (TRANSMITTED  
AND REFLECTED LIGHT)



**VICKERS M72A UNIVERSITY  
POLARIZING MICROSCOPE  
(TRANSMITTED LIGHT)**

to isolate the conoscopic figure for an area of 0.05mm in the center of the field, - suitable for the analysis of quite small particles.

SMITH INCIDENT ILLUMINATOR... a patented system, markedly superior in performance to previous designs. Conventional prism and cover-glass illuminators, operating in polarized light, give extinction confined to a N-S band across the field. Use of special prisms and the addition of collimating lenses can partially correct this condition - usually at the expense of aperture or with excessive complication. In the Smith design rotation of the polarized beam on passing through the reflector is less than half that of other systems. Result- extinction is almost homogeneous over the whole field, resulting in greatly improved image contrast ....and with further distinct advantages where photometry is involved.



**VICKERS M72AM METALORE  
MICROSCOPE (REFLECTED  
POLARIZED LIGHT)**

Optical Equipment The Vickers range of optical accessories of interest to the geologist and mineralogist is one of the most extensive offered by any manufacturer. Conventional and flat-field strain free achromats, long-working distance, and low power oil immersion objectives are offered - as well as a complete range for such special techniques as phase contrast, interference, micro-hardness, etc. Our catalog offers wedges and compensators of 15 different types, 6 different strain-free substage condensers, a great variety of eyepieces suiting every need. Our M72 Research Polarizing price list gives a full listing.

## YOUR M72 INTERMEDIATE CAN BE UPGRADED AT ANY TIME

### M72 Research Binocular Polarizing Microscope

Because its design is fully modular your Intermediate can be easily converted into a full - capability research model. Shown at the side is a binocular model fitted with research type analyzer and polarizer units. In the M720100 Analyzer both analyzer and compensators can be rotated separately or together (as is useful in some compensating techniques). The M720190 Polarizer is graduated, rotatable through 360°, and can be swung out of the optical path easily, as required.

Universal Stage - The Vickers large diameter ball-bearing rotating stage is drilled and tapped to take universal stages of all standard makes. Illustrated is the Vickers 3-axis Universal Stage. Vickers produces a 3-axis in preference to 4 or 5 - axis stages, as the diminished stability and movement of these stages far out-weighs the advantages of the seldom-used A3 axis and the elimination of graphical procedure with the 5-axis system.

Photomicrography - Vickers supplies a full range of camera equipment for association with the M72 polarizing microscopes. All formats are available, 35mm, 3 1/4" X 4 1/4", 4"X5", Polaroid, etc. Manual or automated operation is offered - the latter by employment of the Vickers J35 Auto-exposure unit which computes exposure time and actuates an electro-magnetic shutter.

### Incident Light-Reflectivity and Micro-Hardness

Complete equipment is cataloged for assaying comparative reflectivity of opaque specimens. Precise measurements can be made on fields down to one micron in diameter, being displayed on an easy-reading digital micro-photometer. Vickers Micro-Hardness equipment can be mounted along with the reflectivity accessories so that these tests can be conveniently made in sequence.

For Further Information:

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