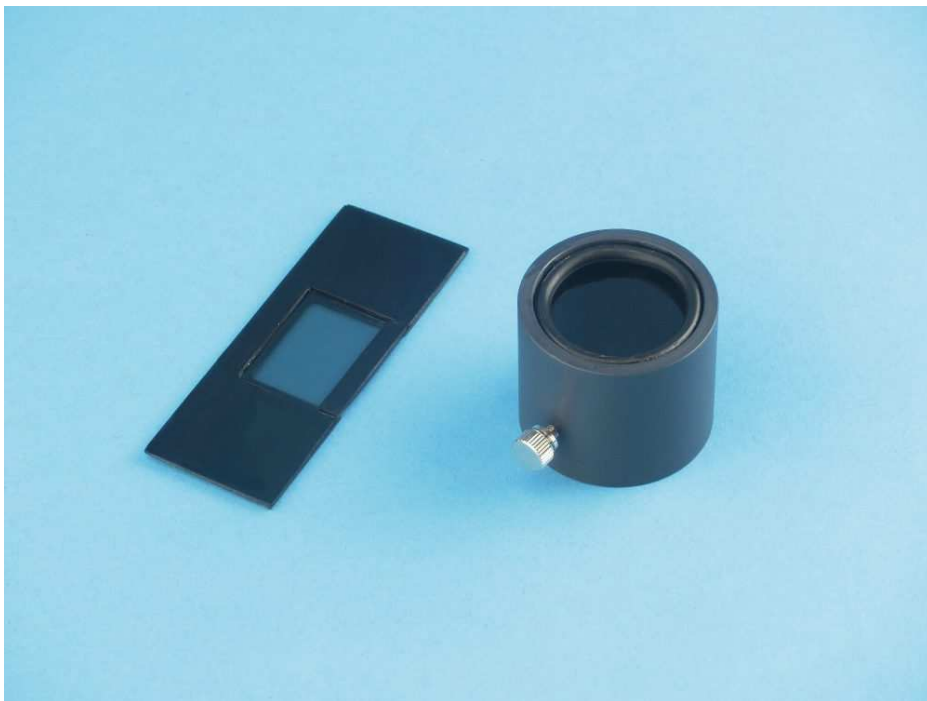


# Attachable Polarizer & Analyzer

Cat. No. D21-8173-W1



## Precautions

- Do not directly look at the sun through the product.
- Do not clean this product using alcohol or organic solution. Otherwise, the product can deteriorate and/or be damaged.
- Do not disassemble, repair, or remodel this product. This product might not work correctly, and the warranty will be void.
- Keep dry. Otherwise, the product can deteriorate and/or be damaged.
- Do not touch the surface of the polarizer and/or analyzer with something sharp-pointed or hard to prevent from scratches.
- Always carry out students' experiments under the supervision of teachers/trainers.

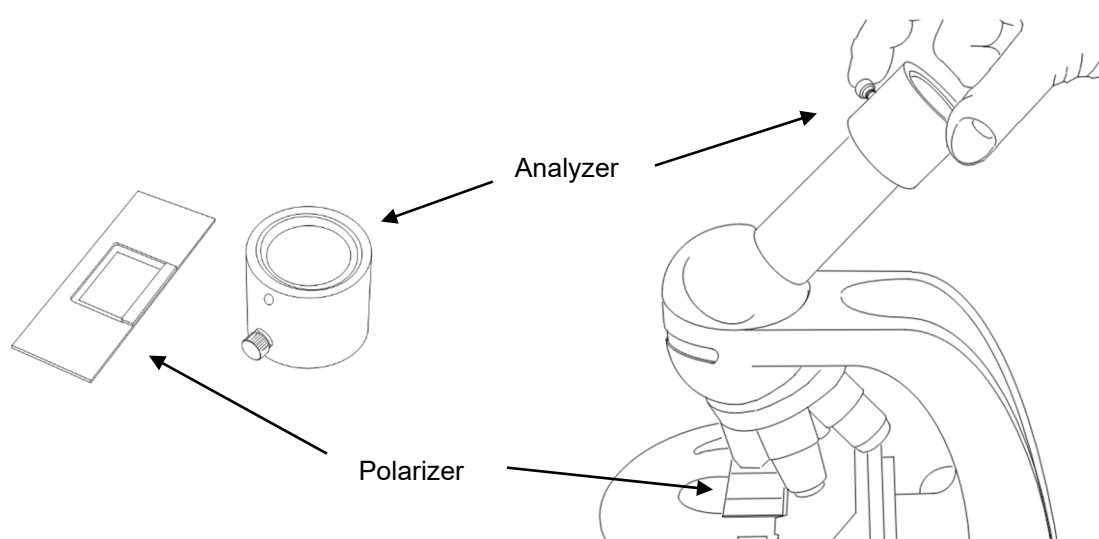
## Product's Feature

Simplified polariscope (without lens) attachable to a biological microscope that consists of a hood-type analyzer used to cover an eyepiece and a filter-type polarizer used to be placed beneath the prepared slide.

Using the hood-type analyzer and the filter-type polarizer quickly turns your biological microscope into a polarized microscope. Such a biological microscope with this product allows a good observation of polarization properties for minerals, rocks, and plastic films. However, the analyzer has no scales for measuring angles such as brightening/extinction, pleochroism, or interference color.

When observing a thin section of mineral, rock or plastic film, it is easy to observe the phenomena such as pleochroism, interference color, brightening, and extinction. However, it is not possible to measure the brightening/extinction angles with this product.

## Analyzer & Polarizer



## Specification

### Analyzer:

Material: Polyvinyl chloride (body), Cellulose triacetate, Polyvinyl chloride (polarized plate)

Size: 40 mm diameter x 34 mm (not including protrusion)

Adaptable eye piece outer diameter for the analyzer: 26 – 31 mm

(extinction angle is not measurable with this product)

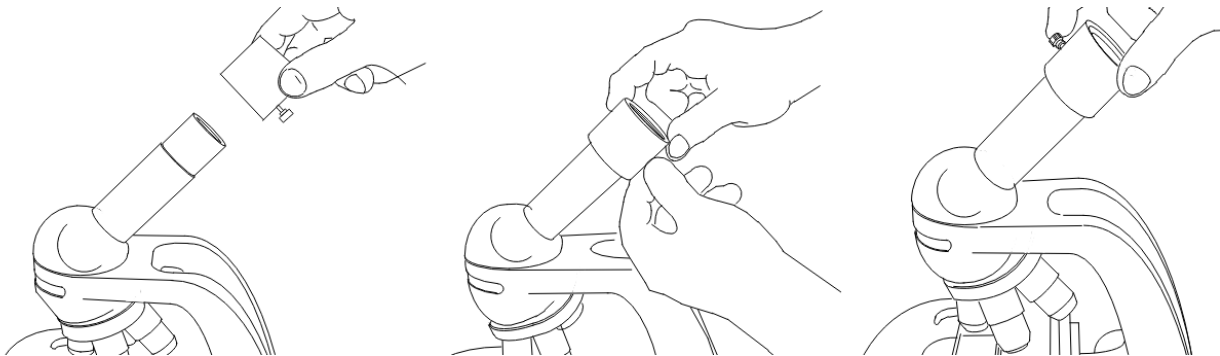
### Polarizer:

Material: Polyvinyl chloride (body), Cellulose triacetate, Polyvinyl chloride (polarized plate)

Size: 80 x 30 x 2 mm

## Observation procedure:

### Pleochroism



1. Slowly cover the eyepiece with the analyzer.
2. Knurled screw on the analyzer prevents rattling and loosening between the analyzer and the eyepiece. Note that, if screwed too tightly, the side surface of the eyepiece can be scratched.
3. Observe the pleochroism exhibited by a thin section of mineral, rock, or plastic film by slowly rotating the analyzer.

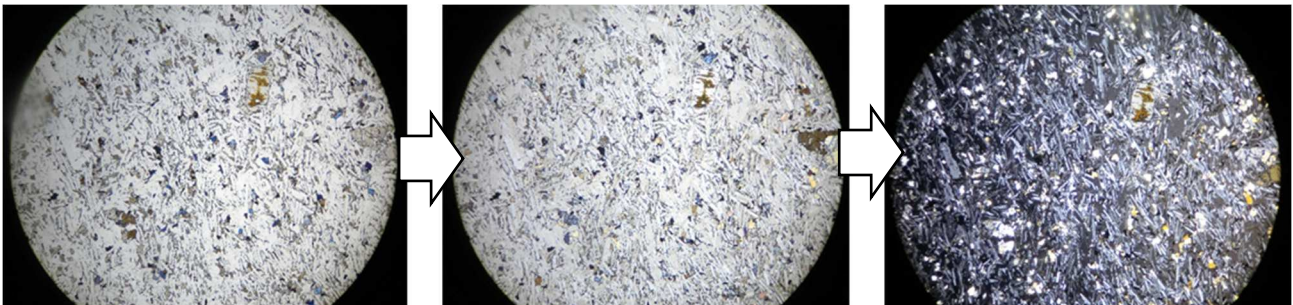
Pleochroism is an optical phenomenon in which a substance has different colors when observed at different angles. For example, when observing a thin section of biotite granite using the analyzer, its pleochroism is observed as the change of colors.



### Interference color and extinction

1. Slowly cover the eyepiece with the analyzer.
2. Knurled screw on the analyzer prevents rattling and loosening between the analyzer and the eyepiece.  
Note that, if screwed too tightly, the side surface of the eyepiece can be scratched.
3. Place the filter-type polarizer (polarizer) on the stage of the microscope. Then, set the prepared slide on the polarizer.
4. Observe the interference color and/or extinction exhibited by a thin section of mineral, rock or plastic film by slowly rotating the analyzer.

For example, when observing a thin section of basalt, colorful patterns/figures of interference or extinction of the basalt appear during changing the polarization plane (crossed Nicols and open Nicols) formed by spatial relationship between the analyzer and polarizer.



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