

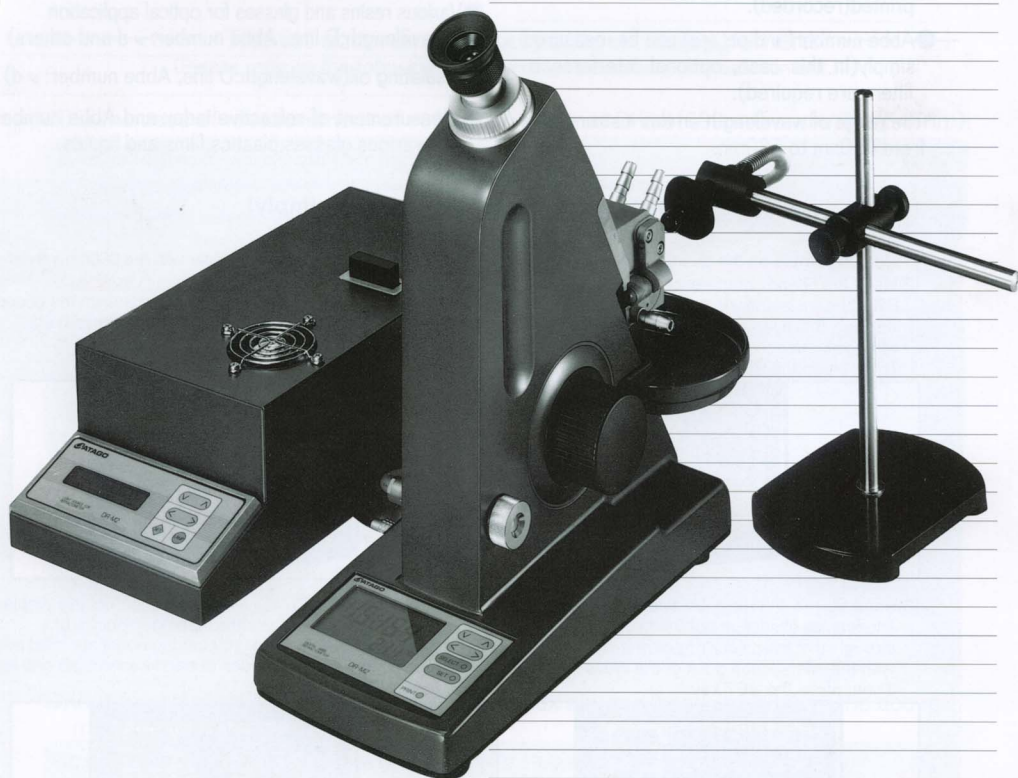
For measuring refractive
index at various
wavelengths and
Abbe number(ν_d or ν_e)!

New Product!

Cat.No.1410

Multi-wavelength
Abbe Refractometer

DR-M2



Lately, optical materials for medical treatment and optical communication increase. These materials must be measured at wavelength at which they are used. According to the use, e line(546nm) acts as a standard wavelength. Moreover, in order to measure Abbe number (ν_d or ν_e), plural wavelengths are required. Multi-wavelength Abbe Refractometer DR-M2 is the most suitable measuring instrument for these measurements.

Features

- Refractive index can be measured at different wavelengths.
- Refractive index and Abbe number are indicated in digits.
- The light source is bright and the lighting head allows to direct the light in any direction.
- If an optional digital printer is connected, refractive index or Abbe number will be printed(recorded).
- Abbe number (ν_d or ν_e) can be measured simply(In this case, optional interference filters are required).

*The range of wavelength on this instrument is from 450nm to 680nm.

Examples of uses

- Materials for lenses of eyeglasses(wavelength:e line, Abbe number: ν_e)
- Materials for contact lens(wavelength:e line, Abbe number: ν_e)
- Optical plastics for optical communication (wavelength:633nm,etc)
- Materials for compact disk(wavelength:D line, Abbe number: ν_d and others)
- Various resins and glasses for optical application (wavelength:D line, Abbe number: ν_d and others)
- Insulating oil(wavelength:D line, Abbe number: ν_d)
- Measurement of refractive index and Abbe number for various glasses,plastics,films and liquids.

Abbe number can be measured simply!

(In the case of measurement of Abbe number " ν_d ")

(1)Set the sample on the prism surface.

(2)Insert the 589nm interference filter(attached to the DR-M2 as a standard accessory). While looking through the eyepiece, match the boundary line with the intersection point of the cross hairs. Then, press the SET key.



(4)Replace the interference filter with the 656nm interference filter(of an optional part).

While looking through the eyepiece, match the boundary line with the intersection point of the cross hairs.



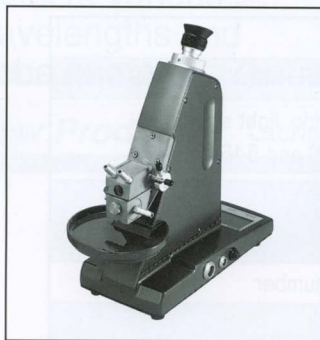
(3)Replace the interference filter with the 486nm interference filter(of an optional part). While looking through the eyepiece, match the boundary line with the intersection point of the cross hairs. Then, press the SET key.



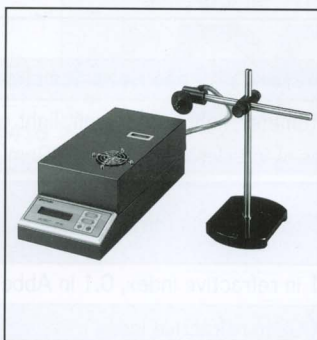
(5)Press the SET key. The indication on the display at that time represents the Abbe number " ν_d ".

*It is very convenient if you use an optional digital printer, because refractive index at each wavelength and Abbe number are printed.





DR-M2

The light source unit
(with light stand and light guide)Digital printer DP-21(B)
(optional)

Standard set

The list according to purposes of measurement

(Please refer to the following list according to purposes of measurement.)

A) In the case of measurement of refractive index at D line(589nm) and e line(546nm):

- Cat.No.1410 multi-wavelength Abbe refractometer DR-M2

In case an optional digital printer is required: Cat.No.3012 digital printer DP-21(B)

(Please note that interference filter 589nm(D) and 546nm(e) are attached to the DR-M2 as standard accessories.)

B) In the case of measurement of Abbe number" ν d":

- Cat.No.1410 multi-wavelength Abbe refractometer DR-M2
- Parts No.RE-3521 interference filter 486nm(F) for the DR-M2
- Parts No.RE-3522 interference filter 656nm(C) for the DR-M2

(Please note that interference filter 486nm(F) and 656nm(C) are optional.)

In case an optional digital printer is required: Cat.No.3012 digital printer DP-21(B)

C) In the case of measurement of Abbe number" ν e":

- Cat.No.1410 multi-wavelength Abbe refractometer DR-M2
- Parts No.RE-3524 interference filter 480nm(F') for the DR-M2
- Parts No.RE-3525 interference filter 644nm(C') for the DR-M2

(Please note that interference filter 480nm(F') and 644nm(C') are optional.)

In case an optional digital printer is required: Cat.No.3012 digital printer DP-21(B)

D) In the case of measurement of refractive index at wavelength other than the above-mentioned wavelengths.

- Cat.No.1410 multi-wavelength Abbe refractometer DR-M2

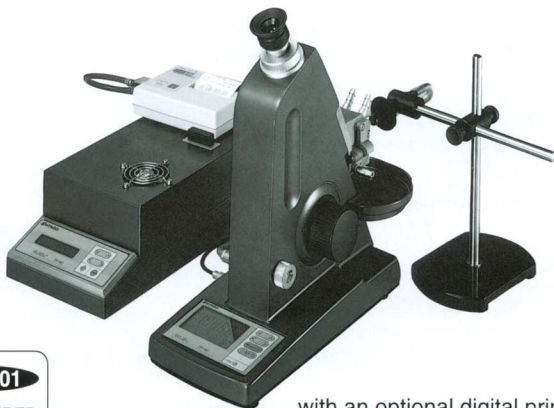
* An optional interference filter is required.

(In this case, please specify required wavelength within the range of wavelength from 450nm to 680nm so that we can prepare an optional interference filter.)

In case an optional digital printer is required: Cat.No.3012 digital printer DP-21(B)

Specifications

Cat. No.	1410
Name of product	Multi-wavelength Abbe Refractometer DR-M2
Component units of the set	Refractometer, light source unit, light guide, light stand, 2 pieces of interference filters: 589nm(D) and 546nm(e)
Measurement range	1.3000 to 1.7100 in refractive index
Minimum indication	0.0001 in refractive index, 0.1 in Abbe number
Measurement accuracy	± 0.0002 in refractive index (with the attached test piece at 500nm to 650nm)
Range of wavelength	From 450nm to 680nm(With interference filters)
Measurement temperature	+5.0°C to +50.0°C(with circulating constant temperature bath)
Output terminal	For digital printer DP-21(B)(optional) Conforming to centronics standard
Power supply	100 to 240V
Dimensions and Weight	Refractometer : 13×29×31cm, 6kg Light source unit : 15×33×11cm, 3kg



with an optional digital printer DP-21(B)



*Specifications and design of outer appearance are subject to change without notice.

ATAGO CO.,LTD.

Main Office:32-10 Honcho, Itabashi-ku, Tokyo 173-0001, Japan

Phone:81-3-3964-6131, FAX:81-3-3964-6137

Web site:<http://www.ntl-net.ne.jp/atago/index.html>

E-mail:atago@sepia.ocn.ne.jp