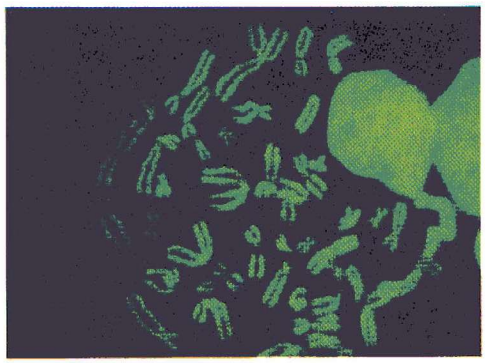
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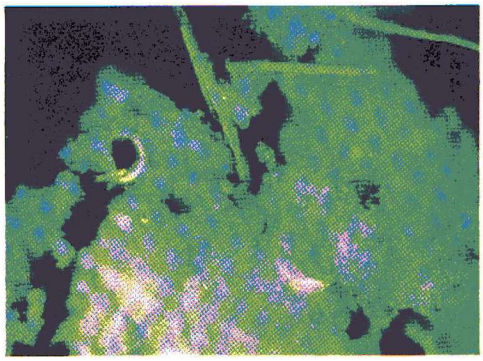
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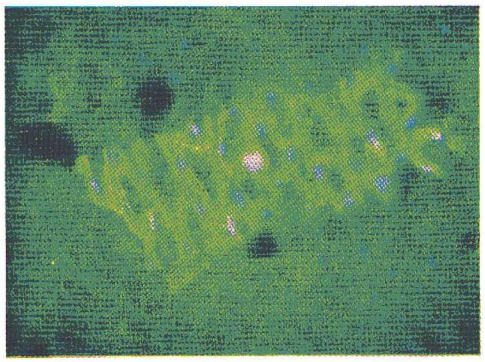
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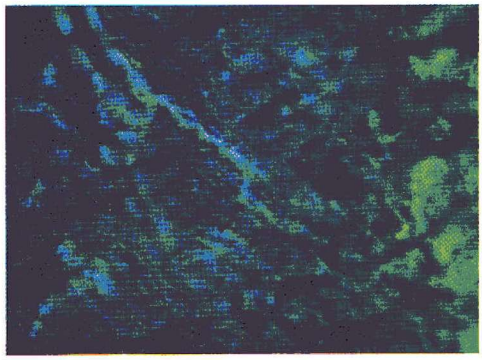
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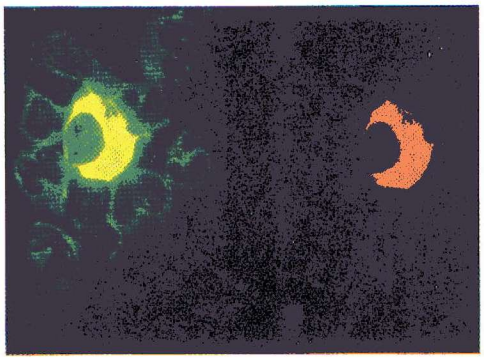
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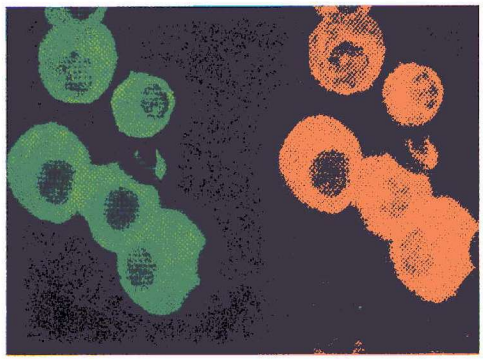
6

REICHERT
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Laméris

Alleenvertegenwoordiging
Laméris
Instrumenten B.V.
Biltstraat 449 Utrecht
Telefoon 030 - 335033

ZETOPAN

Incident light fluorescence

1 Human chromosomes,
stained with quinacrin hydrochloride
exciter filter: BG 12
absorption filter: OG 515
mirror: reflection cut-off 490 nm
objective: fluorite 100/1,30 OI
eyepiece: PK 10×
specimen: Dr. W. Schnedl,
Histologial Institute, Vienna University
photo: C. Reichert

2 Strophantus Kombé
leaves after treatment with ammonium chloride
exciter filter: UG 1
absorption filter: KV 418
mirror: reflection cut-off 400 nm
objective: Pl 4/0,10
eyepiece: PK 6,3×
specimen and photo: C. Reichert

3 Strophantus gratus
leaves after treatment with ammonium chloride
fluorescing spots
technical details as 2

4 Neuro transmitter–intestinal biopsy
exciter filter: interference filter
λ max = 405 nm
absorption filter: KV 418
mirror: reflection cut-off 450 nm
objective: fluorite 16/0,50
eyepiece: PK 6,3×
specimen: Doz. Dr. G. Lassmann,
Neurological Institute, Vienna University
photo: C. Reichert

5 Plasma cell, stained with anti-human IgG/FITC (γ-chain specific) and anti-human λ-TRITC

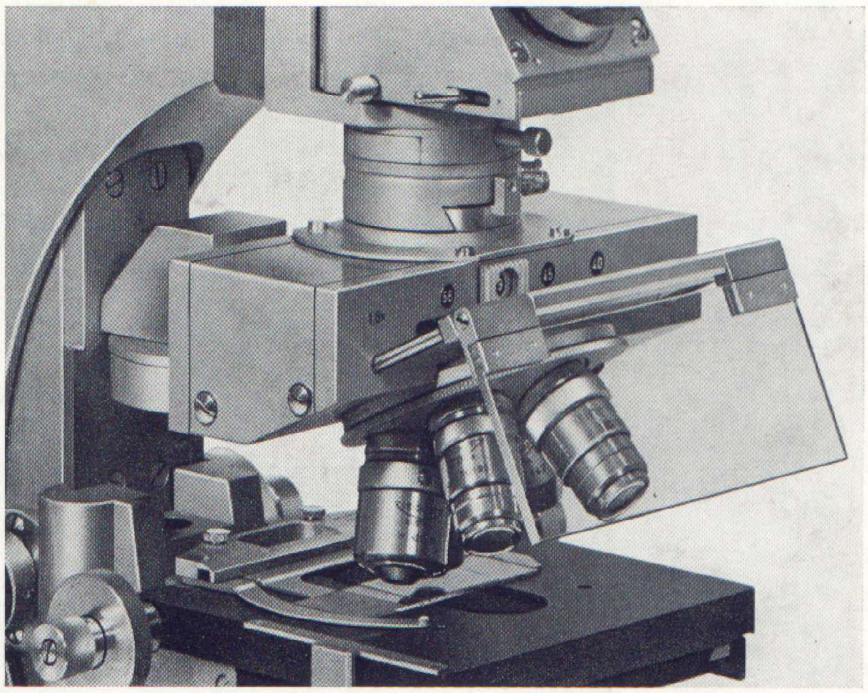
a exciter filter: 2× FITC 3+BG 38
absorption filter: OG 515
mirror: reflection cut-off 490 nm
objective: 95/1,18 Glycerine
eyepiece: PK 8×

b exciter filter: interference filter
λ max = 546 nm
absorption filter: OG 590
mirror: reflection cut-off 560 nm
optics: as a)
specimen and photo: Dr. W. Knapp,
Institute for Immunology, Vienna University

6 Plasma cells with λ-type IgA plasmacyte, stained with anti-IgA-FITC and anti-λ-TRITC conjugates

a exciter filter: interference filter TAL 480
absorption filter: interference filter SAL 525
mirror: reflection cut-off 490 nm
objective: 95/1,18 Glycerine
eyepiece: PK 8×

b exciter filter: interference filter
λ max = 546 nm
absorption filter: OG 590
mirror: reflection cut-off 560 nm
optics: as a)
specimen and photo: Dr. W. Knapp,
Institute for Immunology, Vienna University



Fluorescence microscopy in incident light was first recommended by *Brumberg* after the introduction of high-reflection interference beam splitters, and was further advanced by *Ploem*. In the application of these new techniques (essentially a bright ground method) we developed an illuminator for exceptionally simple operation in conjunction with the large research microscope ZETOPAN BINOLUX III C. The four interference beam splitters for UV, violet, blue and green are permanently linked to the absorption filters mainly in use so that no incorrect operation is possible. A number of interchangeable filter turrets are available, each carrying the exciter filters required for a particular technique. A number code allows simple combinations of the correct exciter filter and mirror. Additional use of a wide-field immersion dark-ground condenser not only permits easy location of specimen details; in conjunction with suitable interference filters it also provides excitation of fluorescence specimens where the incident light excitation offers insufficient brightness because of the limited illumination aperture. New objectives with large aperture are available:
SPI 40/0,90 and fluorite 16/0,50.
Important applications:

Immuno fluorescence

Double staining with FITC and TRITC.
Exciter filter for FITC:
BG 12, 2× FITC-3, TAL 480.
Absorption filter SAL 525 available on request in place of the standard OG 515 filter.
Exciter filter for TRITC:
interference filter λ max = 546 nm.

Aromatic amines (neurotransmitters)

The interference exciter filter λ max = 405 nm ensures very precise selectivity for noradrenalin and serotonin. The interference filter KP 425 and 2 mm BG 25 can be supplied in its place.

Chromosome research

Blue excitation, standard exciter filter BG 12

Pharmacology

Usually UV excitation, standard exciter filter UG 1; low-magnification objectives.

Microfluorimetry

The use of the incident-light fluorescence equipment in conjunction with the micro spectrophotometer produces exceptionally reproducible measurements of fluorescence intensities. This forms, among others, a valuable method for standardising sera in immuno fluorescence. Spectral analysis of fluorescence light through wedge interference filters.
The following light sources are available: mercury lamp for d.c. or a.c. operation, xenon lamp 150 W.

C. REICHERT AG. HERNALSER HAUPTSTRASSE 219 · A-1170 WIEN · AUSTRIA · TEL. 46 16 41 · TELEX 07/48 72

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