

I AM EMPOWERED

INTRAORAL CAMERAS

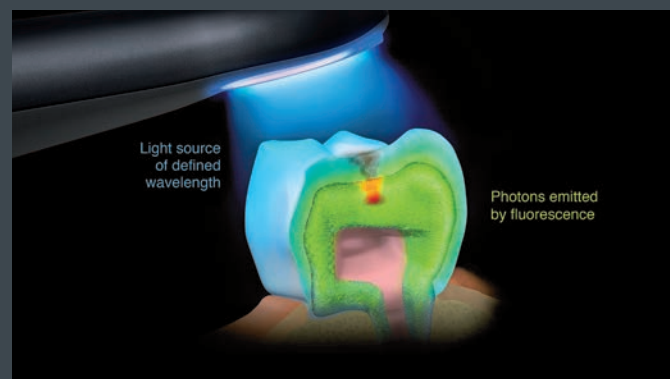
Enhance
your vision



I AM EMPOWERED

THE PRINCIPLE OF AUTOFLUORESCENCE

1. The photons provided by an external light source illuminate the tooth tissues (enamel and dentin).
2. The energy applied by the excitation source (Blue LED) to the tooth tissues causes an energy surge in the material's elementary particles, which then become very unstable.
3. To return to a situation of stability, the excess energy is released by emitting photons lower in energy than the excitation source and those with higher wavelength (Stokes' Law).



CREATOR OF IMAGING INNOVATIONS

MORE INVENTIVE

PATENTED AUTOFLUORESCENCE TECHNOLOGY

The **ACTEON**® imaging team has patented a technology based on the **principle of autofluorescence**.

ACTEON® intraoral cameras provide a real-time fluorescence signal of the tooth superimposed on its anatomical image, revealing invisible tissues.

SELECTIVE CHROMATIC AMPLIFICATION

Due to the combination of blue light absorption by soft tissue and selective chromatic amplification, **SOPROCARE**® improves visibility of all areas of tissue inflammation.



"Our scientific and clinical research* in collaboration with universities and key opinion leaders all around the world, helps us develop relevant innovations that meet perpetually evolving clinical needs.

In the autofluorescence field, this synergy of knowledge resulted in the creation of an international scientific congress. This approach of innovation applies to all products that we are developing within **ACTEON**®."



LESS INVASIVE

HIGHLIGHT PATHOLOGIES AND MOTIVATE THE PATIENT

Autofluorescence makes it possible to **detect decay even at its earliest stages**, without subjecting the patient to any unnecessary radiation. **SOPROCARE**® also **reveals dental plaque** without using plaque disclosing solutions, and **highlights gingival inflammation** painlessly.

Improve clinical performance and easily communicate the treatment plan to your patient. The patient is involved in making decisions and accepts the treatment.

Images can be captured and **stored into any imaging software** giving you all of the necessary tools to practice minimally invasive dentistry.

PATENT BASED ON THE COMBINATION OF ANATOMICAL TOOTH IMAGE AND FLUORESCENCE SIGNAL

* Some examples of sponsored studies:
Performance of a light fluorescence device for the detection of microbial plaque and gingival inflammation. Peter Rechmann, Shasan W. Liou, Beate M. T. Rechmann, John D. B. Featherstone, in *Clin Oral Invest*, 2016.
Use of new minimum intervention dentistry technologies in caries management. H Tassery, B Levallois, E Terrer, DJ Manton, M Otsuki, S Koubi, N Gughani, I Panayotov, B Jacquot, F Cuisinier, P Rechmann, in *Australian Dental Journal*, 2013.
Functional mapping of human sound and carious enamel and dentine with Raman spectroscopy. H. Salehi, E. Terrer, I. Panayotov, B. Levallois, B. Jacquot, H. Tassery, F. J. G. Cuisinier, in *Journal of BioPhotonics*, 20 September, 2012.

DIAGNOSE AND TREAT CARIES

ENHANCE CLINICAL EXAMINATION CAPABILITIES

SOPROLIFE



DAYLIGHT mode
▶ Initial situation

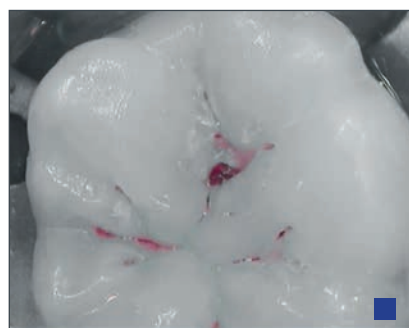


DIAGNOSTIC mode
▶ Demineralization over the mesial marginal crest revealed

SOPROCARE



DAYLIGHT mode
▶ Initial situation



CARIO mode
▶ Carious lesion revealed

Take the guesswork out of caries detection

Autofluorescence improves your vision during clinical examination and expands your diagnostic capabilities. Highlight caries and provide the most appropriate treatment for your patients.

Diagnose early carious lesions for less invasive treatment

Manage your clinical decisions depending on the individual's caries risk, while preserving tooth structure.

Protect your patient from unnecessary radiation

The fluorescence concept surpasses the limitations of digital radiology in the detection of caries. Promote better patient care by reducing the number of necessary X-rays.

Save time

Speed up the decision-making process by improving your diagnostic capabilities and optimizing your clinical examination.

PERFORM LESS INVASIVE TREATMENT



DAYLIGHT mode
▶ Opened cavity



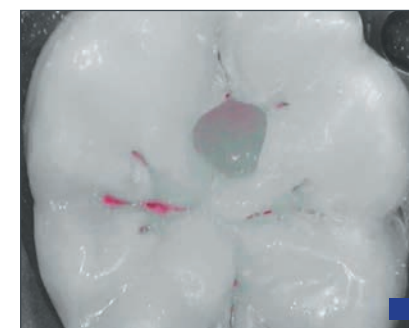
TREATMENT mode
▶ Demineralized enamel and infected tissue



TREATMENT mode
▶ All the infected tissue has been removed



CARIO mode
▶ Infected tissue



CARIO mode
▶ All the infected dentin has been removed

Eliminate uncertainty

Easily distinguish between healthy and infected tissue to determine the limits of excavation, while preserving the pulp. Fluorescence makes treatment easier and more efficient.

Improve the quality of your treatment

Preserve healthy teeth while removing all infected tissue.

SOPROCARE
SOPROLIFE

EXPASYL™

Effective and atraumatic sulcular opening.

Especially indicated for the treatment of class II & V caries.



excavus

Ultrasonic tips for minimally invasive excavation



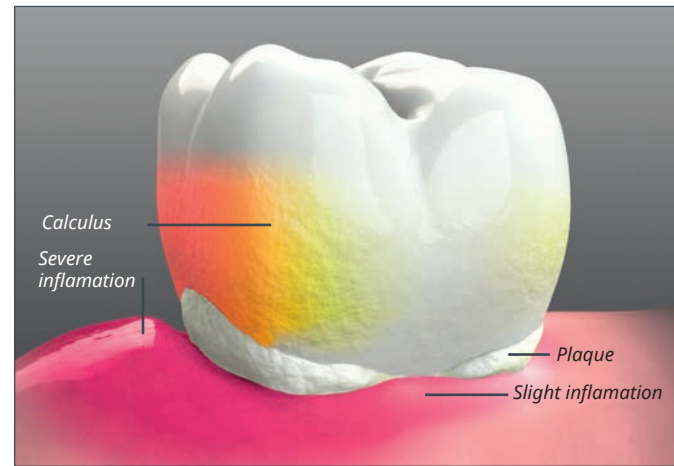
REVEAL PLAQUE AND GINGIVAL INFLAMMATION

SOPROCARE

INSTANTANEOUSLY HIGHLIGHT PLAQUE & GINGIVAL INFLAMMATION

Perform a complete and rapid assessment of the patient's oral health, without adding plaque disclosing solution.

- **Gingival inflammation:** from hues of pink to deep magenta depending on the severity
- **Plaque:** grainy white
- **Calculus:** shades of yellow and orange



Chromatic mapping representing the characterization of tissues in PERIO mode

UNIQUE PROPHYLAXIS TREATMENT WITH FLUORESCENCE

Fluorescence brings better vision for a faster and more efficient treatment.



PREVENT HYGIENE PATHOLOGIES



DAYLIGHT mode



PERIO mode

Early identification of hygiene pathologies will result in early intervention and minimally invasive treatment.

Maintain the patient's health and the longevity of their natural dentition.

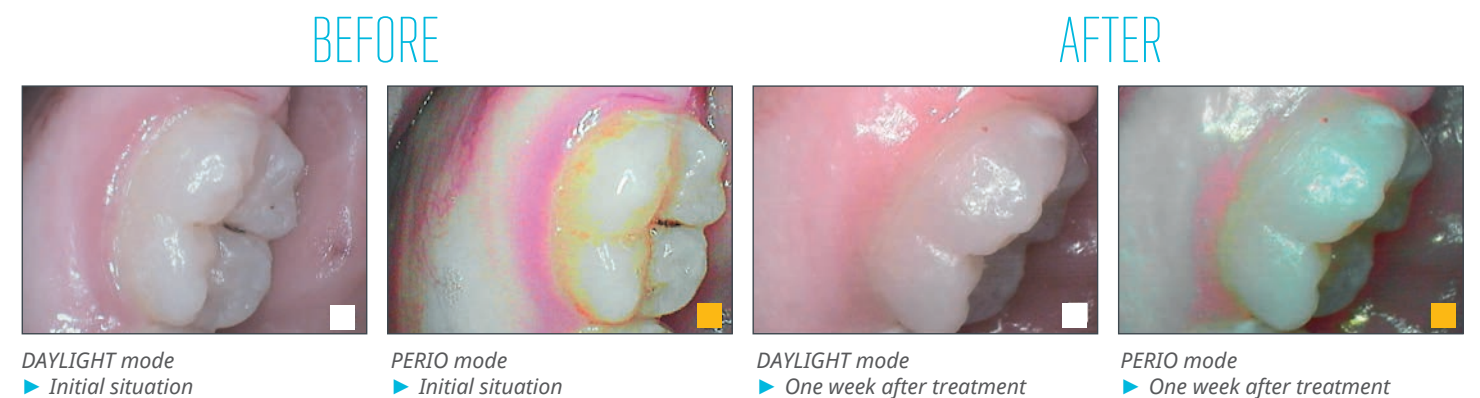
IMPROVE CASE ACCEPTANCE

Ensure that your patient realizes the importance of oral hygiene, and enable them to better understand the information provided during the appointment.

Study:
Psychological, behavioral, and clinical effects of intra-oral camera:
 a randomized control trial on adults with gingivitis. M-R Araújo, M-J Alvarez, C A Godinho, C Pereira, in *Community Dentistry and Oral Epidemiology*, 2016.

TRACK HYGIENE PROGRESS

Encourage your patient by showing them their progress over time, for long term quality treatment.



DAYLIGHT mode
 ► Initial situation

PERIO mode
 ► Initial situation

DAYLIGHT mode
 ► One week after treatment

PERIO mode
 ► One week after treatment

SEE THE INFINITELY SMALL

COMMUNICATE AND MOTIVATE WITH IMAGES

SOPROCARE
SOPROLIFE
SOPRO 717 FIRST

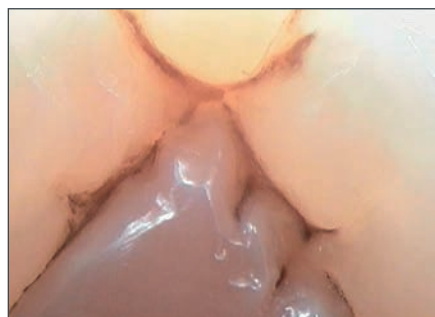
SOPROCARE
SOPROLIFE
SOPRO 717 FIRST
SOPRO 617



Dental cavity preparation



Cracked tooth



Infiltrated occlusal groove



Cervical lesion

ACTEON® intraoral cameras exceed the limitations of the naked eye and offer **high quality images with magnification of up to 115 times.**

With **MACROVISION**, the infinitely small appears before your eyes.

THIS IS MACROVISION

Enhance your vision during examination

See details otherwise not visible to the naked eye. Closely monitor micro fractures and the development of small lesions.

Improve your clinical performance

Take a more detailed look into dental cavity preparation, with more accuracy during treatment.



Improve patient communication

Highlight pathologies in an image and easily explain clinical procedures. Facilitate dialogue to address objections and patient concerns.

Increase treatment acceptance

Patients become more involved, helping them to better understand the importance of their planned treatment. Improve efficiency and productivity!

Educate your patient

Use real images to make the patient more attentive and confident about your advice.

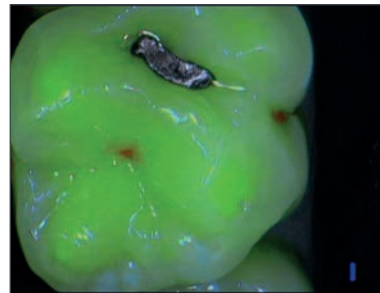
Follow up

Provide effective and efficient treatment planning by saving the images directly into the patient chart. Easily compare images from past patient visits and monitor progress over time.

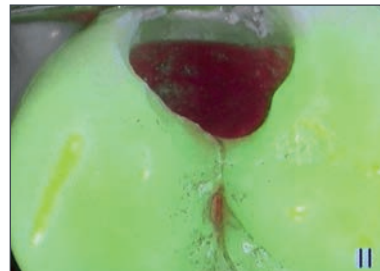
SPEAK THE SAME LANGUAGE **AS** YOUR PATIENT!

AUTOFLUORESCENCE

HIGHLIGHTS DECAY AND PROMOTES MINIMALLY INVASIVE TREATMENT



DIAGNOSTIC mode



TREATMENT mode



DAYLIGHT mode

The power of autofluorescence

- **DIAGNOSTIC mode:** identify the development of occlusal and interproximal carious lesions.
- **TREATMENT mode:** perform minimally invasive treatment by preserving healthy tissue.
- **DAYLIGHT mode:** from portrait to macrovision, obtain sharp images with the large depth of field.

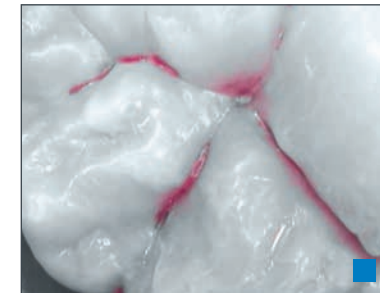
SOPROLIFE® offers two different types of vision: white light (daylight) and blue light (fluorescence).

SOPROLIFE® is a revolutionary camera that differentiates between healthy and infected tissue, facilitating less invasive treatments.



SELECTIVE CHROMATIC AMPLIFICATION

DIFFERENTIATES THE COLOR OF TISSUE AND REVEALS ORAL HYGIENE PATHOLOGIES



CARIO mode



PERIO mode



DAYLIGHT mode

3 needs, 3 modes

- **CARIO mode:** caries are detected as red, surrounding tissue is displayed in black and white.
- **PERIO mode:** highlight plaque, calculus, and gingival inflammation.
- **DAYLIGHT mode:** communicate more effectively with your patient and see details that are not visible with the naked eye.

SOPROCARE® is an unmatched communication tool in the dental practice!

With the push of a button, SOPROCARE® instantly and easily highlights caries, plaque, calculus and gingival inflammation.

MACROVISION

REVEALS WHAT WAS ONCE INVISIBLE



State of the seal of the amalgam




Infiltration



Infiltrated occlusal groove

Magnification of the image up to 115 times

- Large depth of field from extraoral to macrovision
- Exceptional image quality provided by a highly sophisticated optical system
- Extremely small camera head for easier access
- Successfully capture images with a simple glide over the **SOPRO® touch** 

SOPRO® 717 reveals micro fissures, infiltrations, lesions, everything that is not visible with the naked eye.



COMMUNICATION:

THE KEY TO EDUCATION & CASE ACCEPTANCE



Intraoral




Intraoral



One tooth

Simplicity in the palm of your hand

- Rounded shape and thin distal part for maximum accessibility and unrivaled patient comfort
- 105° angle of view for better exploration of distal areas
- Fixed focus with large depth of field, providing high quality images
- Ease of use: point and shoot 

SOPRO® 617 is easy to use for patient communication, and a great asset for case acceptance.

TECHNICAL SPECIFICATIONS

SOPRUCARE SOPRULIFE SOPRU717 SOPRU817

Highlight dental plaque	✓			
Highlight gingival inflammation	✓			
Caries detection	✓	✓		
Macrovision	✓	✓	✓	
Intraoral image	✓	✓	✓	✓



SOPRUCARE

- High sensitivity..... 1/4" CCD
- Resolution.....(752x582) PAL ; (768x494) NTSC
- Lighting.....7 LED (4 white; 3 blue)
- Focus Adjustment.....4 pre-set positions (Extraoral, Intraoral, LIFE, Macro)

SOPRULIFE

- High sensitivity..... 1/4" CCD
- Resolution.....(752x582) PAL ; (768x494) NTSC
- Lighting.....White Mode: 4 LED; Blue Mode: 4 LED
- Focus Adjustment.....4 pre-set positions (Extraoral, Intraoral, LIFE, Macro)

SOPRU717

- High sensitivity..... 1/4" CCD
- Resolution.....(752x582) PAL ; (768x494) NTSC
- Definition.....470 lines
- Sensitivity.....2 lux
- Lighting.....8 LED
- Focus Adjustment.....3 pre-set positions (Extraoral, Intraoral, Macro)

SOPRU817

- High sensitivity..... 1/4" CCD
- Resolution.....(752x582) PAL ; (768x494) NTSC
- Definition.....470 lines
- Sensitivity.....2 lux
- Lighting.....8 LED
- Adjustment.....fixed focus

- Freeze Frame..... SOPRO Touch or pedal (option)
- Angle of view..... 70°
- Dimensions (mm) L. 200 x W. 30 x H. 24
- Weight.....78 g

- Freeze Frame..... SOPRO Touch or pedal (option)
- Angle of view..... 70°
- Dimensions (mm) L. 200 x W. 30 x H. 24
- Weight.....78 g

- Freeze Frame..... SOPRO Touch or pedal (option)
- Angle of view..... 70°
- Dimensions (mm) L. 200 x W. 28 x H. 24
- Weight.....75 g

- Freeze Frame..... SOPRO Touch or pedal (option)
- Angle of view..... 80°
- Dimensions (mm) L. 205 x W. 28 x H. 24
- Weight.....55 g

WORKSTATION CONFIGURATION

WINDOWS® MINIMUM CONFIGURATION REQUIRED

- Operating systemWindows® 7 SP1
- Processor Core 2 duo - 3GHz
- RAM2 GB
- Hard disk..... 250 GB
- USB ports..... 4 USB2 Hi-Speed ports
- Graphic card 512 MB RAM unshared memory compatible DirectX 9
- USB Chipset Intel® or NEC® / RENESAS®
- Screen resolution 1280 x 1024

WINDOWS® RECOMMENDED CONFIGURATION

- Operating systemWindows® 10
- ProcessorIntel® Core i5
- RAM4 GB
- Hard disk..... 1 TB
- USB ports..... 4 USB2 Hi-Speed ports
- Graphic card Chipset Nvidia® or ATI® 2 GB unshared memory compatible DirectX 9 or more
- USB Chipset Intel® or NEC® / RENESAS®
- Screen resolution 1280 x 1024 or more

MAC® MINIMUM CONFIGURATION REQUIRED

- Computer..... MacBook® Pro 13.3" or iMac® 21.5"
- Operating system OS X Mavericks
- Processor Intel® Core 2 Duo
- RAM2 GB

MAC® RECOMMENDED CONFIGURATION

- Computer..... iMac® 27"
- Operating system OS X El Capitan
- Processor Intel® Core i7
- RAM4 GB

For Yosemite and El Capitan operating systems, a Mac® from 2013 or later is required.

DOCKING STATIONS

Dock MU-USB2

- Storage of one or four images
- Power supply: 24V~; 50Hz - 60Hz
- Power consumption: 10VA
- One PAL or NTSC video output
- One PAL or NTSC S-video output
- One digital USB 2.0 output
- Dimensions (mm):
L. 100 x W. 72 x H. 36
- Weight: 190g
- Cable length: configurable

Dock USB2

- One digital USB 2.0 output
- Dimensions (mm):
L. 100 x W. 46 x H. 20
- Weight: 165g
- Cable length: 2.5m

Mini Dock U-USB2

- Power Supply: 5VDC (from USB port)
- Power consumption: 2.5VA
- One digital USB 2.0 output
- Dimensions (mm): L. 48 x W. 48 x H. 30
- Weight: 22g

www.aceongroup.com

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