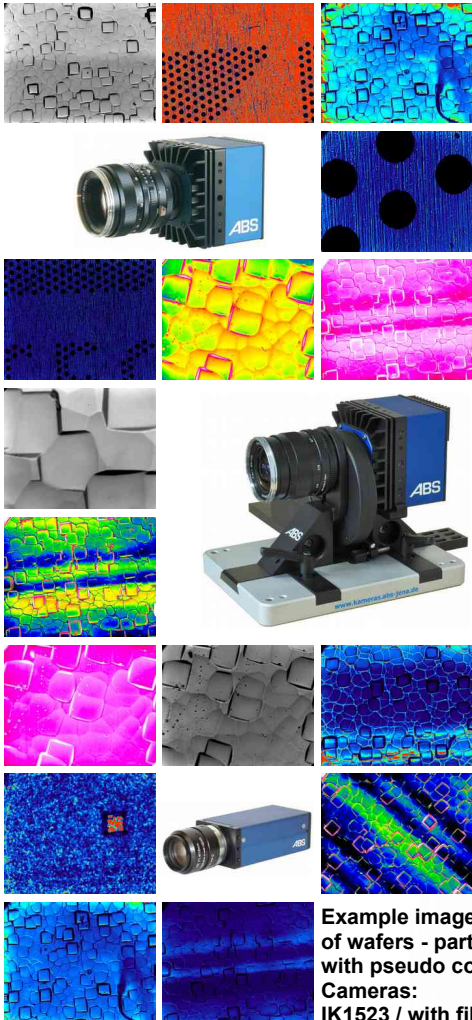


## INFRARED MICROSCOPY WITH HIGHLY SENSITIVE SWIR-CAMERAS FROM ABS



Example images of wafers - partially with pseudo color overlay  
Cameras:  
IK1523 / with filter wheel FKS01 / IK1112

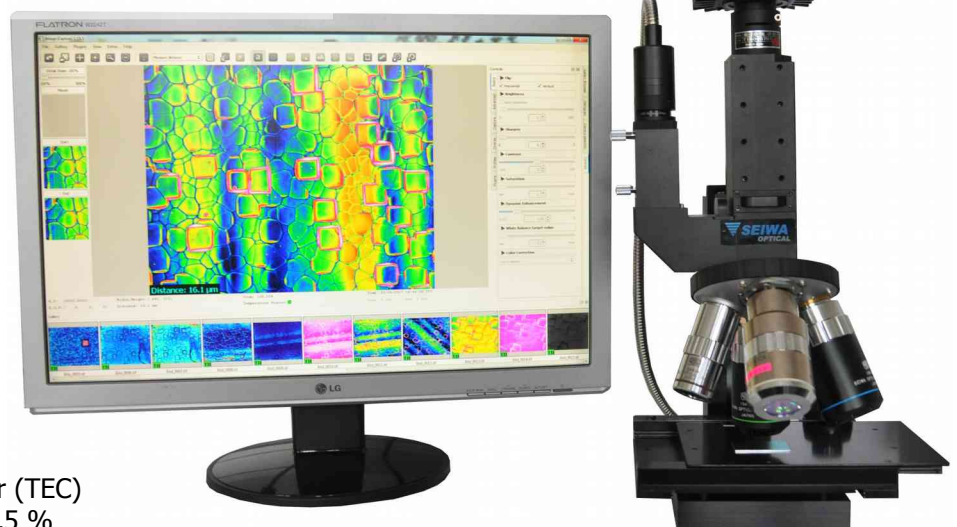
The combination of highly sensitive ABS SWIR cameras (wavelength range: 900 nm to 1700 nm) and Seiwa infrared microscopes allows new inspection tasks to be solved in the fields of industry, medicine, pharmaceuticals, biotechnology, agriculture and research. In microelectronics it is possible to see through visually intransparent surfaces to get an immediate view into the structure of MEMS / MOEMS, multi-stack modules (3D-Stack, 3D-IC), wafers, photovoltaic cells and wafer level chip scale packages (CSPs).

The user-optimized camera control and operating software Image-Capture-I provides the best possible picture quality by means of image enhancement algorithms and correction mechanisms. It also adds measurement functions, image management (gallery), camera control, automated image recording, overlays and many other functions.

The special, thermally optimized housing makes cooling of the IK1523 particularly effective. With optional adapters from M42 or F-Mount (Nikon) to C-mount, a flexible use of lenses is also possible. Using a standard USB2.0 interface, the camera can be operated easily on any PC or laptop.

The 14-bit A/D converter allows the recording of a high dynamic range. Special correction mechanisms, adapted to the characteristics of InGaAs-sensors, guarantee a very high image quality. The thermoelectric cooling of the sensor increases the sensitivity even further and allows high exposure times.

ABS SWIR-Camera IK1523  
Software ImageCapture-I  
Infrared-microscope



### CAMERA FEATURES IK1523

- 1,3" InGaAs matrix sensor
- 640 x 512 pixels
- 25  $\mu\text{m}$  x 25  $\mu\text{m}$  pixel size
- Quantum efficiency > 70 %
- Progressive Scan
- Global Shutter
- Framerate 30 fps
- A/D resolution 14 bit
- Exposure time 67  $\mu\text{s}$  to 1 s
- Built-in thermo-electric cooler (TEC)
- Typical pixel availability > 99,5 %