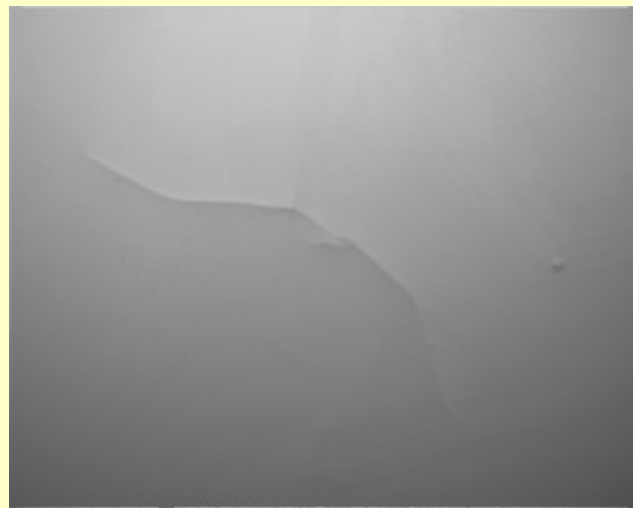


TWIC Ra μ C



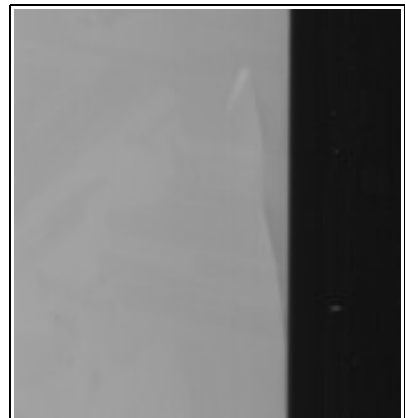
Inspection system for microcrack and inclusion detection in silicon bare wafers



- New detection technology guarantees reliable detection of micro-cracks and inclusions – both in poly and mono crystalline material
- The handler is designed to serve as OQC-unit for wafer producers and as IQC-system for cell producers
- Its compactness provides high flexibility – the system may be used as stand alone handler or may be integrated in existing production lines

All following images show microcracks and defects, that are located within the silicon and thus not visible to the human eye.

The special detection technology combined with TWIC-Solar software makes them clearly visible and well detectable for our automatic inspection system.



Hilker & Partner GmbH
Withauweg 3, 70439 Stuttgart

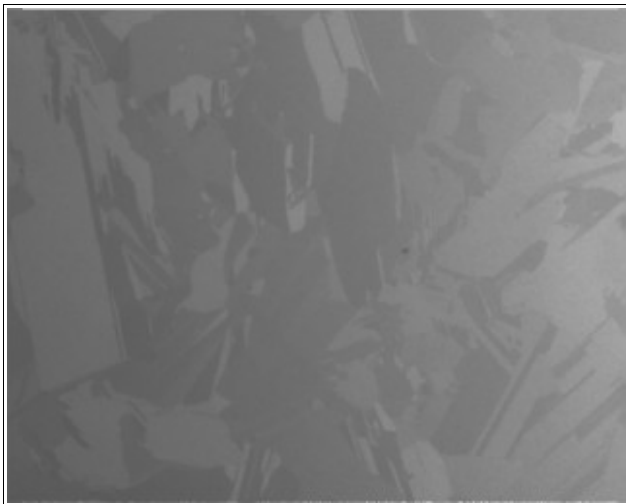
QuaVis Technologies GmbH
Mühlweg 2c, 82054 Sauerlach

T: +49 -1520 9804118
sales@quavis.de
www.quavis.de

TWIC Ra μ C



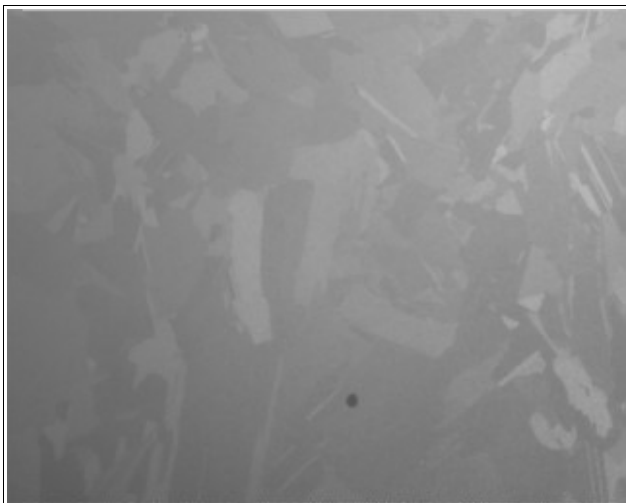
The first column depicts a picture of the wafer using a standard CCD camera, the second column shows the same wafer area how is it seen by our advanced visualization technology. Please note, that the images in the second row are not the result of image processing or software, but direct output of our sensors.



The location of the microcrack was marked by the black dot near to the center of the image.



The marker is still visible, but has changed color to white.



Hilker & Partner GmbH
Withauweg 3, 70439 Stuttgart

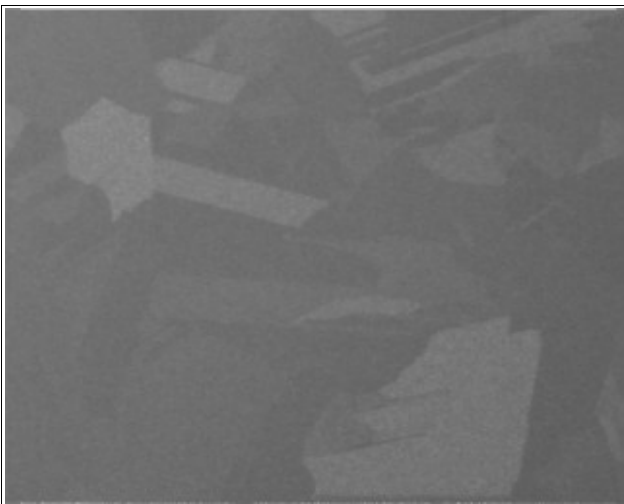
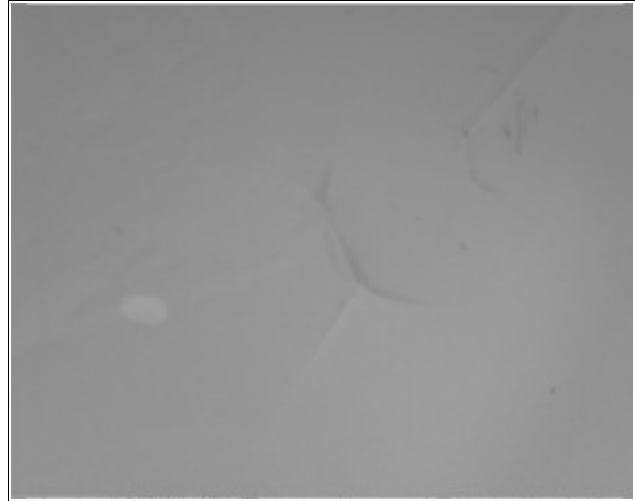
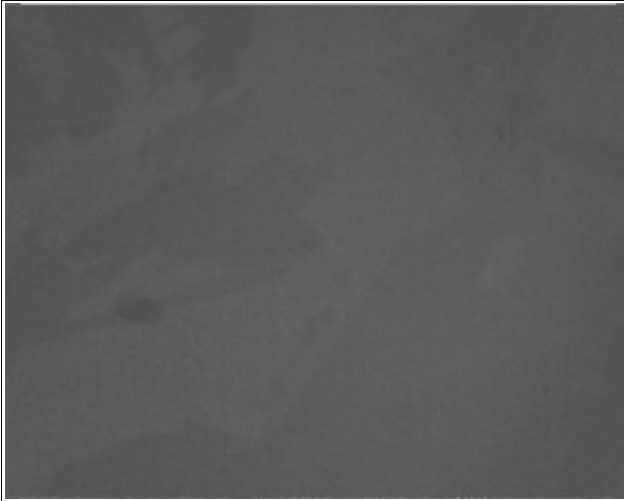
QuaVis Technologies GmbH
Mühlweg 2c, 82054 Sauerlach

T: +49 -1520 9804118
sales@quavis.de
www.quavis.de

TWIC Ra μ C



TWIC's acquisition technology suppresses the wafer's crystalline structure very efficiently, while highlighting the defects inside of the silicon.
The detection system works on mono-crystalline as well as on polycrystalline wafers.

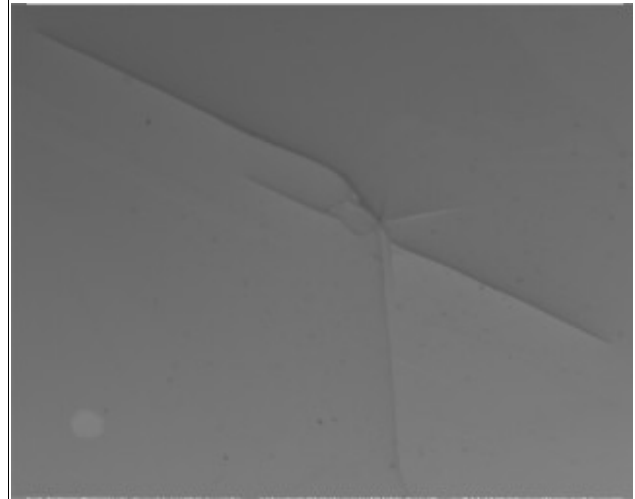
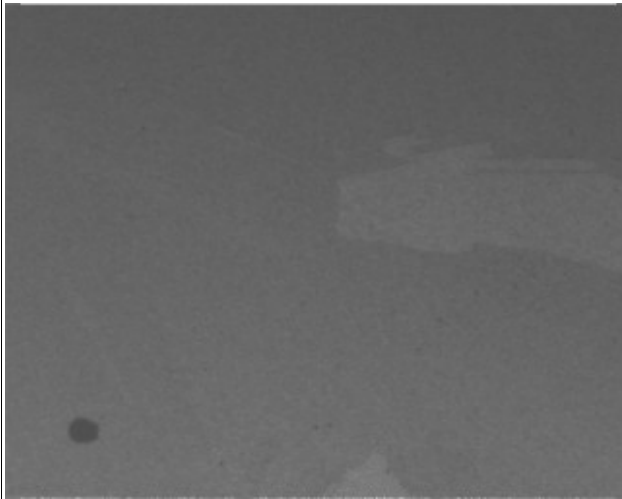


Hilker & Partner GmbH
Withauweg 3, 70439 Stuttgart

QuaVis Technologies GmbH
Mühlweg 2c, 82054 Sauerlach

T: +49 -1520 9804118
sales@quavis.de
www.quavis.de

TWIC Ra μ C



Two versions of TWIC Ra μ C are available:

	Standard	Double precision
Microcrack min. length:	500 μ m	250 μ m
Microcrack min. width:	1 μ m	0.5 μ m
Min inclusion area:	300 μ m x 300 μ m	150 μ m x 150 μ m
Max. speed:	2 Wafers/sec	
Wafer type:	Mono- and Multicrystalline	
Wafer geometry:	All wafer geometries are supported	

Hilker & Partner GmbH
Withauweg 3, 70439 Stuttgart

QuaVis Technologies GmbH
Mühlweg 2c, 82054 Sauerlach

T: +49 -1520 9804118
sales@quavis.de
www.quavis.de