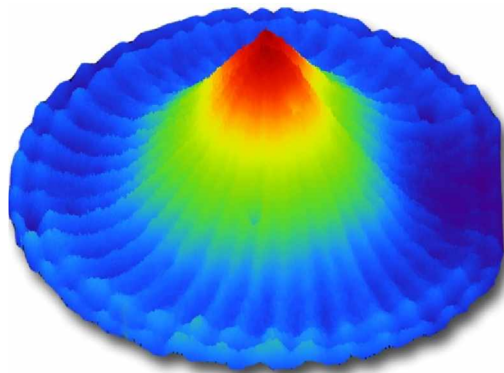
Measuring Examples:

Measurements on Solar Cells & Wafers

with Precitec Sensors

Precitec Optronik GmbH



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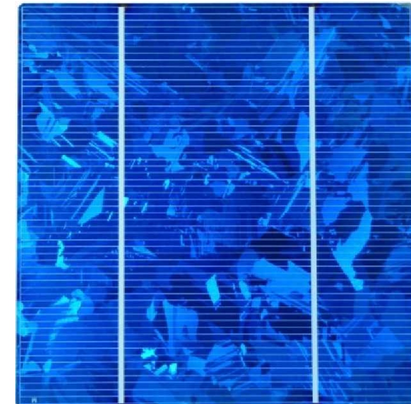
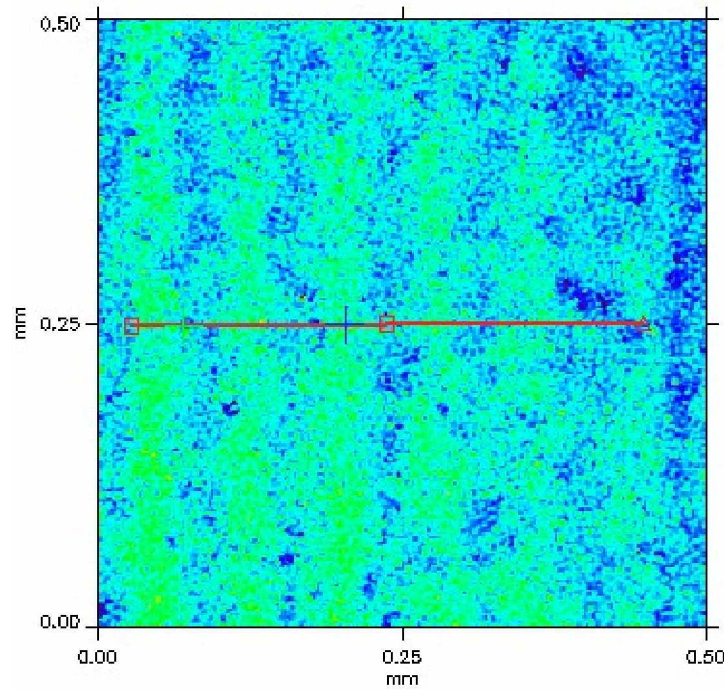
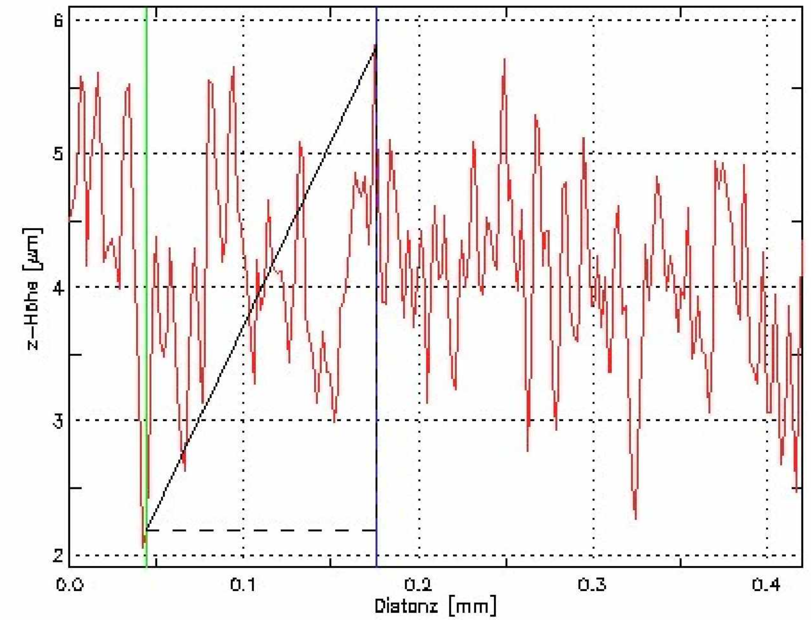


Ideas with system

Measuring Examples

CHRocodile E: Wafer Topography





Ideas with system

Measuring Examples

CHRocodile IT: Thickness Scan on Solar Cell

Profile Cut

0.668 mm

0.050 mm

Thickness

Distanz [mm]

Ideas with system

Measuring Examples

CHRocodile E: Height of a Printed Finger on Solar Cell

26 µm

0 µm

Profile Cut

mm

mm

Height [µm]

Distance [mm]

Ideas with system

Measuring Examples

CHRocodile IT: Thickness Scan of a Si-Wafer – 3D Picture

Ideas with system

Measuring Examples

CHRocodile IT: Thickness Scan of a Si-Wafer – Thickness Profile Cut

0.00969 mm

0 mm

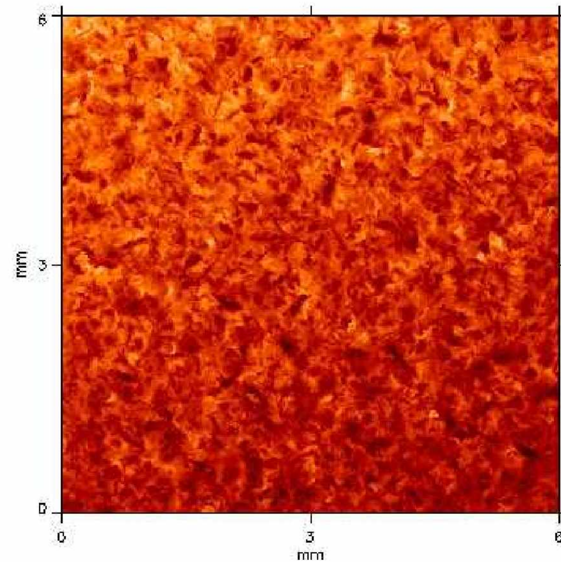
Thickness Profile Cut

Distanz [mm]

Ideas with system

Measuring Examples

CHRocodile E: Roughness Parameters of Surfaces



Filtered surface parameter

Analyze | Close

Waviness (•) Roughness

[ ] Use noise filter

0.020

Noise filter Ls [mm]

1.000

Cutoff wavelength Lc [mm]

( ) Ignore Lc at line start and line end

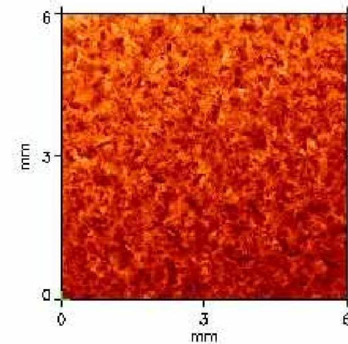
(•) Ignore Lc/2 at line start and line end

( ) Ignore Lc at line start only

( ) Use full evaluation length

Roughness filtered image

[ ] Copy filtered data after close



Statistics of roughness data (Lc = 1.000 mm):

Parameter	Value
sRa:	13.098 µm
sRq:	16.520 µm
sRz(DIN):	145.275 µm
sRmax:	159.119 µm
sRp:	76.830 µm
sRv:	93.002 µm
sRt:	169.832 µm
sRsk:	-0.260
sRku:	3.210
sRk:	42.286 µm
sRpk:	13.890 µm
sRvk:	19.251 µm
sMr1:	8.352 %
sMr2:	89.518 %