

EPIC Online Meeting on Process Monitoring

Dr. Wilfried Hermes, 13.09.2021

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Introduction trinamiX

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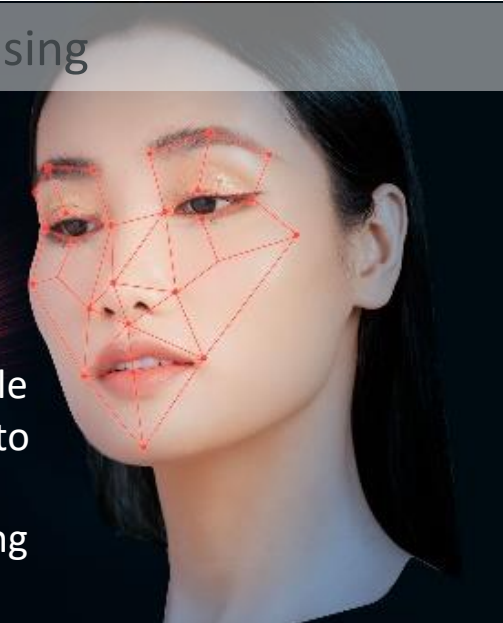
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- > Wholly-owned subsidiary of BASF SE
- > 214 patents, 170+ employees
- > Entire production in Germany for quality and attention to detail
- > Highly innovative product portfolio including full solutions and components

3D Sensing

- > We set a new biometric standard
- > Industry certified for secure face authentication behind OLED displays
- > Secure face unlock and mobile payment, frictionless access to buildings and cars etc.
- > Based on IP protected imaging technology



IR Sensing



What's our business? Spectroscopy

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Transmission



Reflection



Spectrometer

- > Wavelength: 1,4 μm to 2,5 μm
- > 1% wavelength resolution
- > Only immovable parts

trinamiX NIR Spectroscopy Solution with application areas in:

- > Circular Economy
- > From Farm to Fork
- > Material & Substances
- > Body & Hair

Chemometric Model

- > Comprehensive chemical know-how to qualify and quantify analyzed materials, for example water and protein contents
- > Developed inhouse
- > Updated via cloud automatically



Cloud-connected software

- > Wireless and encrypted (SSL and AES 256) data transfer
- > Analysis available anywhere, anytime
- > Application for iOS, Android, Windows



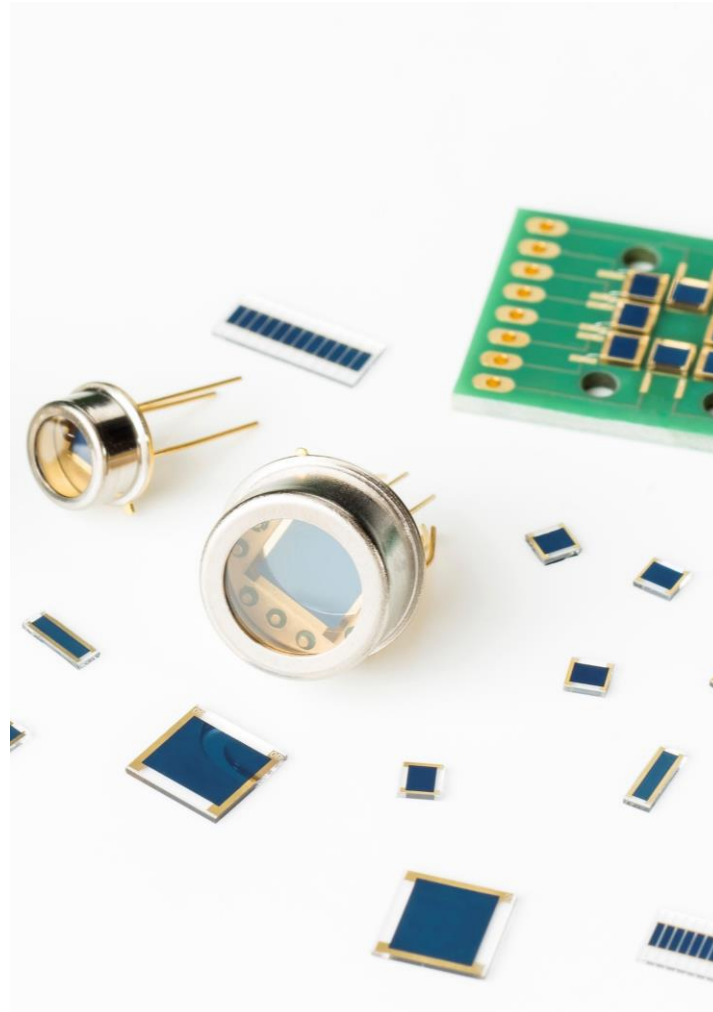
Multi Spectral Solution based on trinamiX PbS(e) detectors

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IR Detectors with application areas in:

- > Flame monitoring
- > Spark and Flame detection
- > Gas sensing
- > Moisture monitoring
- > NIR spectroscopy



Our solution comprises:

- ✓ Pixel-number can be customized between 1 to 256
- ✓ Cost-efficient integration of spectroscopy capabilities for PAT
- ✓ Easy and fast hardware adaptation
- ✓ Broad wavelength range from 1 μm to 5 μm
- ✓ Small size and scalability – ideal for integration in industrial machines and appliances
- ✓ Solid state, no moving parts for superior mechanical stability