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In-line capable quality
assurance of pharma-
ceuticals through laser-
based backscatter
infrared spectroscopy



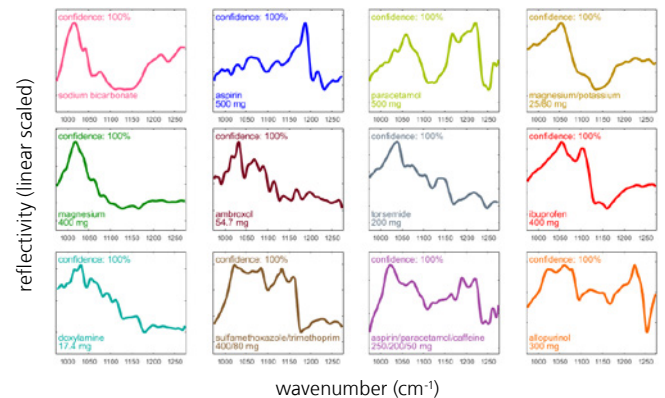
Pharmaceutical blister carrying 12 different commercially available tablets

In-line capable quality assurance of pharmaceuticals through laser-based backscatter infrared spectroscopy

Mid-infrared backscatter spectroscopy allows to distinguish tablets of similar physical appearance (size and color) but different composition by the characteristic infrared fingerprint of their constituents. Core of the system is our miniaturized fast spectrally tuneable quantum cascade laser module enabling contact-free and eye save tablet identification within milliseconds.

Key parameters

- Substance-classification algorithms based on machine learning
- 20 milliseconds scan time per tablet, 0.3 seconds scan time per blister
- Mid-infrared fingerprint region
- 100 % tablets verification
- Automatic blister and tablet detection based on machine vision, ideal for integration in existing inline production systems



The 12 tablets are optically scanned and classified within 0.3 seconds.