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# TRANSMISSION RAMAN SPECTROMETRY NEW APPROACHES FOR QUALITY CONTROL EFFICIENT AND EASY TO USE

## **Sebastian Ziewer Arndts**

Analyticon Instruments GmbH, Germany

Efficiency is essential in the field of pharmaceutical production as regulatory guidelines are getting tougher and tougher. Therefore processes need to be optimized in order to use the given resources in the best possible way. The new and unique transmission Raman-spectrometer TRS100 ensures increased product safety during content uniformity tests, while simultaneously saving 60-90% of operating costs compared to the commonly used HPLC. With the TRS, the measurement time for one sample is under one second. Measurement itself is completely non-destructive, making considerably more measurements possible and substantially reducing release time. In contrast to HPLC the analysis is completely non-destructive, needs to sample preparation and the results are not user dependent, but even transferable from one instrument to another. This new and modern analytical approach to content uniformity testing will also be helpful when it comes to continuous manufacturing. Integrating such a device into a process will ensure that the quality is consistent and the final release can easily and reliably be done. In addition to the high through put

and the time saving approach the instrument has only very little maintenance costs and no consumables in contrast to the normal HPLC analysis that is very costly. As Raman is also sensitive for polymorphous substances this kind of testing is also useful for this. The speech shows how this new approach can be a revolution for the pharmaceutical world as far as cost and time saving is concerned. In addition, it is explained how the transmission technology ensures extremely selective results and how easy model building is.

### **Biography**

Sebastian Ziewer Arndts completed his PhD in Biology from University Hospital in Bonn in 2012. Afterwards he started working for Analyticon Instruments GmbH. He is leading the sales and service department for pharmaceutical market. He provides advice to the biggest pharmaceutical companies in Germany, Austria and Switzerland regarding new approaches, process optimization as well as interesting technical equipment.

s.ziewer-arndts@analyticon.eu