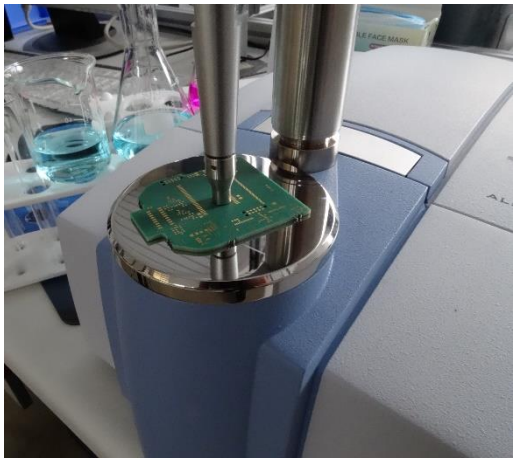
I spy, with my little eye…

Performance benchmarking.

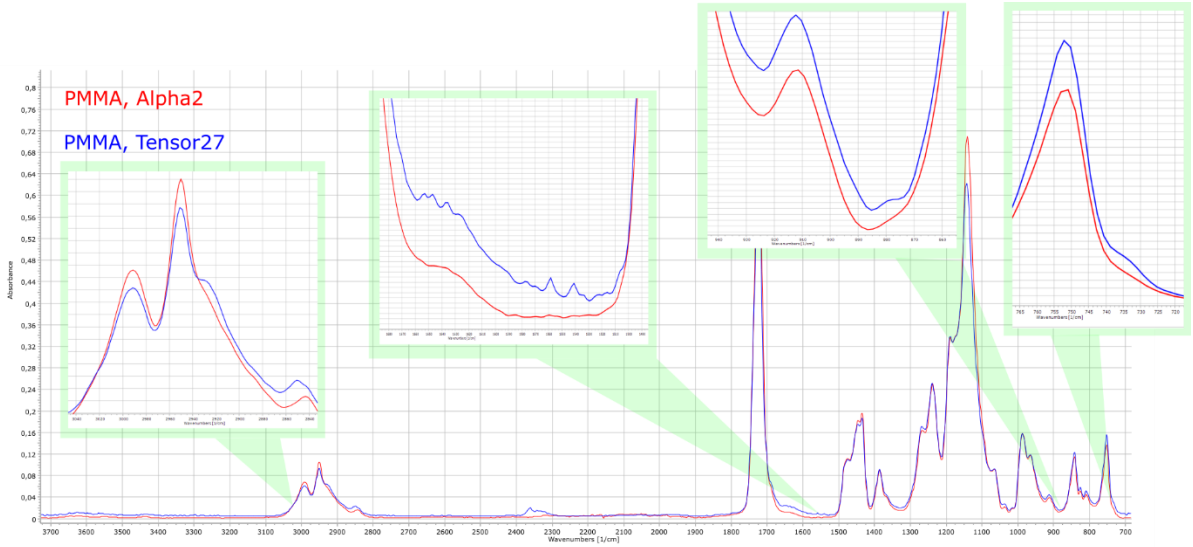
When we decided to invest in a new spectrometer for our Analytics business unit, we made exactly the right choice. There was no question that our decision would go to BRUKER, the world market leader in the field of spectroscopic analysis. But which spectrometer should it be? The choices were a compact Alpha 2 spectrometer and a Tensor 27 spectrometer for advanced scientific research.

Picture 2: Tensor 27, Fa. BRUKER



Picture 1: Alpha 2, Fa. BRUKER

Because the Tensor 27 - the "royal class" of spectrometers - represented a significantly higher investment than the compact Alpha 2, we took a very close look at its performance and signal resolution. For a direct comparison of the two spectrometers, we chose a PMMA probe that was analyzed with an ATR diamond cell under the same conditions on both devices.



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At first glance, the two FT-IR measurements seem to look the same. However, when the relevant areas are zoomed in - in this case, traces of the impurities that clearly influence the quality - significant differences in the performance of the two spectrometers become clear. The Tensor 27 detects the significant details that are hidden from the Alpha 2. The results speak for themselves, which confirmed our decision to invest in the Tensor 27.

CONCLUSION:

In direct comparison, significant differences are visible in the sensitivity as well as in the signal-to-noise ratio of the two spectrometers. When the precision of the measurement is important, such as when detecting the smallest traces of contaminants or a detailed analysis of the formulation - Tensor 27 from the research field is always the right choice.

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