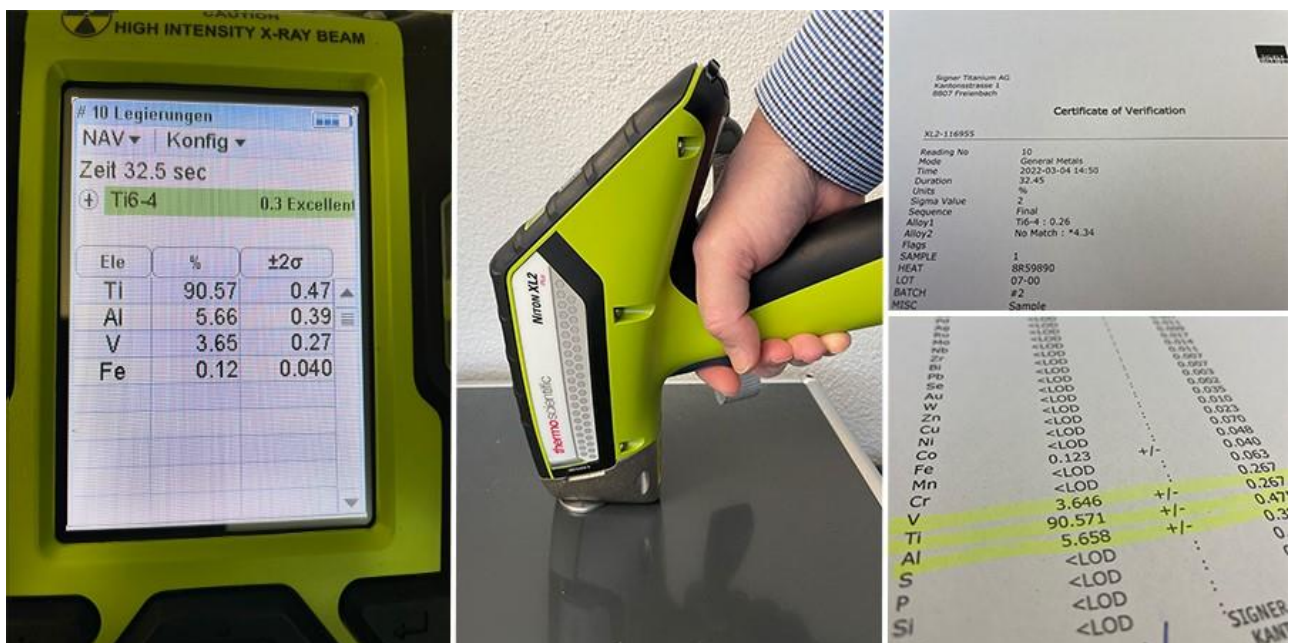


# NEWSLETTER – Testing Technology

## X-ray fluorescence analysis for qualitative material analysis

In order to analyze materials, one of the methods used today is X-ray fluorescence analysis (XRF analysis), with which an X-ray beam ionizes the atoms in the sample and thus releases electrons from the atomic shell. As the electrons change places in the atomic shell, energy is released (known as fluorescence radiation), the energy intensity of which is measured by a detector and compared with stored data. Today, XRF analysis is indispensable in everyday industry and in the laboratory. All technically relevant chemical elements from magnesium to uranium can be detected by this analysis. The sample is neither destroyed nor does it become radioactive. XRF analysis is thus used to determine the amount of substances contained in the sample, for example the content of aluminum or vanadium in a titanium alloy.

Signer Titanium AG uses hand-held XRF instruments with limited radiation power, which can be used at our site, but also outside at our suppliers and service providers. The result of the measurement is displayed on the device screen. This allows simple mix-up checks, positive material identification or more in-depth alloy analysis.



Mix-up testing and positive material identification is an integral part of Signer Titanium's quality manual and our staff is highly trained in the use of the equipment. Upon request, we can perform testing for you and provide verification certificates.

If you have any questions about our testing capabilities, please do not hesitate to contact us.