

TXRF – pros, cons and applications

In a normal Energy Dispersive X-Ray Fluorescence (EDXRF) spectrometer you get fluorescence signals not only from the sample of interest, but also from the sample support. This leads to higher detection limits for many of the elements under analysis. One way around this obstacle is to arrange the spectrometer in such a way that the incoming X-Rays are totally reflected on the sample support. This is achieved in TXRF where the incoming angle is lower than the critical angle for the energy of the X-Ray radiation and the material of the reflector. The difference between an EDXRF and a TXRF spectrum is illustrated below.

The characteristics, pros and cons of TXRF will be covered and the usability of TXRF will be shown by some application examples.

