



Dr. Stanislav Ulitzka – Applications Specialist at AXT

AXT Pty Ltd – Rigaku’s Distributor in Australia and New Zealand

By Dr. Cameron Chai, Marketing and Communications Manager

Stani is AXT’s applications specialist, having over 30 years’ experience in the areas of mineralogy and materials analysis, primarily with XRF, as well as other associated technologies and techniques.



Figure 1. Stani working on the Rigaku Supermini200 in the AXT Demonstration Lab.

His career began with a degree and Doctorate in mineralogy from Würzburg University in Germany, where he first became acquainted with analytical techniques such as XRF and XRD. In 1986 he moved to Erlangen University, where he spent 6 years in teaching and research in the Materials Science faculty. In this position he was pivotal in securing a new XRF instrument, being involved with the selection process and the subsequent purchase and commissioning. He then became the chief XRF operator and trained other users. His own work centred on the analysis and conservation of historical glasses. From this point onwards, XRF has been an integral part of his career.

In 1992, he migrated to Australia and continued his work on conservation at the Powerhouse Museum, before moving up the road to the University of Technology, Sydney. At UTS he worked in research and was the main operator of a newly installed XRF spectrometer.

In 1996 he started working for Philips Analytical (which became PANalytical), initially as an XRF applications specialist servicing clients in Australia and the Asia-Pacific region. In this capacity, he was involved with commissioning instruments, including calibration, training, refining procedures, working mostly with industrial clients, in particular in the mining industry, which was experiencing massive growth at the time. His relationship with PANalytical continued after 1999 when he formed his

own company, Twotheta, and continued doing contract work for PANalytical, as well as working directly with some of his own clients in mining and commercial labs on XRF, setting up XRF instruments and associated sample preparation equipment in Australia and other countries, including Brazil, Indonesia, and Zambia.

One key job was working on a project for BHP Billiton with Brian O’Connor, who is widely recognised for his expertise in crystallography-based analytical methods, and especially for his development work of powder XRD and XRF characterisation procedures. This particular project involved the integration of a Rigaku SmartLab into a production environment. Together they developed a workflow for the preparation and



quantification of 100 samples per shift, including Rietveld refinement, related to separation of talc from nickel ore in a mining operation.

He then joined AXT in 2015 as our Applications Specialist, where he mainly works with XRF and XRD, as well as other related technologies, such as automated mineralogy. At AXT he develops procedures and workflows for Rigaku's ZSX Primus, Supermini200, SmartLab and MiniFlex instruments in our Demonstration Lab.

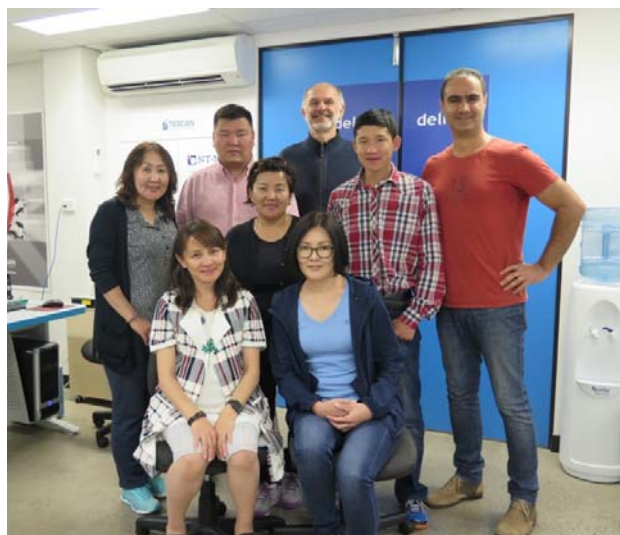


Figure 2. Stani with an international delegation at the conclusion of a successful XRF training course.

materials and minerals analysis. This is exemplified by his list of publications and continued involvement with the AXAA conferences (the premiere analytical X-ray conference in Australia), where he regularly presents workshops promoting the benefits of XRF analysis and its application. He does however seek to continue learning, and works with Rigaku Japan and Europe to keep expanding his existing knowledge base.

When not working on XRF and XRD, Stani can often be found wondering in outback Australia and other parts of the world, fossicking for interesting mineralogical samples.

His primary function is in a sales support capacity. In this role he justifies the selection of instruments to clients and demonstrates their direct applicability. Following installation, he then carries out the commissioning and operator training and ongoing applications support. Stani also hosts beginner, intermediate and tailored training for XRD and XRF users.

Stani also works with AXT marketing to produce application notes that highlight the capabilities of Rigaku instruments, keeping them in forefront of potential users, and help existing users get the most out of their instruments.

Stani is well liked and respected in his field due to his vast knowledge and experience in the area of



Figure 3. Stani on the AXT Demonstration Lab with the Rigaku ZSX Primus III+ and MiniFlex 600.