



## STOE STADIVARI WITH METALJET SOLVING THE “IMPOSSIBLES”



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WE ARE PROUD TO ANNOUNCE THE INSTALLED STADIVARI WITH A METALJET SOURCE AT THE UNIVERSITY OF BASEL, CHEMICAL CRYSTALLOGRAPHY LAB OF DR. MARKUS NEUBURGER

Dr. Neuburger’s chemical crystallography laboratory is an analytical facility located at the department of chemistry at the University of Basel. His team is focused on determining crystal structures for different groups of the chemistry department at the University Basel by means of X-ray diffraction experiments.

The configuration of his new high-end diffractometer consists of a special setup of the STOE STADIVARI: Combining a STOE STADIVARI goniometer with an Excillum MetalJet D2 (Ga K $\alpha$ ) and the Dectris Pilatus 3R 300K detector.

Crystals to be analyzed are getting smaller and smaller and are scattering weaker: With the performance of this setup it is possible to shed light on crystals that simply couldn’t successfully be analyzed before. It enables users to measure smallest samples with a reasonable resolution in a reasonable time.

The STADIVARI is an open, flexible system that is ideally suited to accommodate high-end components like the MetalJet, where utmost care and precision is essential to achieve the maximum flux combined with the best possible data quality.

“ DR. MARKUS NEUBURGER AT UNIVERSITY BASEL:

*“Per aspera ad astra”, this could be the short description of the project to get this outstanding STADIVARI with the MetalJet generator. Convincing people that this is the instrument we need was a lengthy process, especially as nobody has had the chance to try before. But it was worth every effort I spent in the project phase.*



This instrument is like a diva. Before she goes to perform every detail must be right. But when all requirements are met and she enters the stage in the Metropolitan Opera in New York you can be sure you will enjoy an evening of perfect constructive interference of waves.

With this instrument I could solve problems I had no chance to solve before. In one case detecting for the first time the tiny bits of intensity in between the strong reflections we had always seen lead to a bigger unit cell and with it to a space group with higher symmetry. And when the refinement went smoothly to convergence without strange ghost peaks in the residual electron density I knew that this instrument can do all we had ever dreamed of!”

“ THOMAS PIPPINGER: “This STADIVARI lifts single-crystal X-ray diffraction in the home lab up to a new level. The performance and possibilities are simply impressive.”

“ JENS RICHTER adds: “Building this instrument was challenging, but the STOE team managed to integrate the MetalJet and turned the system into a real high-performance diffractometer. We are glad to have Markus Neuburger as a ‘happy’ customer and are impressed by the astonishing results he received from the STADIVARI-MetalJet.”