



**Development of a Bath Cryostat SPM with Low Helium Consumption and Options
for Integration of a Magnetic Field**

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March 2 - 10:00 am - 11:00 am

Join Zoom Meeting:
<https://purdue-edu.zoom.us/j/91439681081?from=addon>

Abstract:

In the recent years we have developed a bath cryostat platform for low temperature SPM applications (qPlus AFM and STM). The platform (POLAR SPM) is characterized by a very low helium consumption/long hold time, the possibility of the integration of a vertical magnetic field and an additional, recently developed option for the realization of temperatures $T < 1.7$ K at the SPM measurement head.

This contribution will focus on the instrument design aspects and challenges encountered during the instrument's development process as well as on first results that have been obtained by research scientists and by our in-house development team.

Bio:

Andreas (Andy) Bettac received his Ph.D. in Physics from the University of Rostock in 1999. He then joined Omicron Nanotechnology where he worked until 2013 as both a development engineer for Low Temperature SPM solutions (focus: LT STM, qPlus and 300mK STM) and as a Product manager for Low temperature SPM and Nanoprobing at Omicron/Oxford-Omicron. In 2014 he left Oxford-Omicron to help start the company SIGMA, in the dual role of development engineer and product manager for SPM. Since 2020 he has been a product manager for SPM at Scienta Omicron.