

# SENIS - Customer Reference:

## Universität Wien - Austria



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Nanomagnetism and  
Magnonics Group

At Nanomagnetism and Magnonics Group at the University of Vienna, we performed some comparable measurements with the SENIS Cryogenic 3D Transducer in our dilution refrigerator that is cooled down to  $1.4\text{K} \pm 0.15\text{K}$ . The results are comparable with the SENIS calibration data.

David Schmoll,  
PhD student

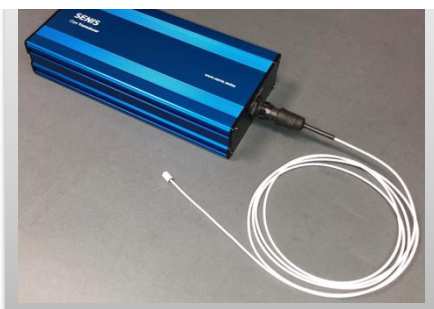
### Universität Wien, Austria

[www.univie.ac.at](http://www.univie.ac.at)

The group of Prof. Andrii Chumak performed some test measurements in their labs using the SENIS Cryogenic 3D Transducer. Their measurement results are comparable with SENIS' cryogenic calibration data.

At the Nanomagnetism and Magnonics Group, the dilution refrigerator is cooled down to  $1.4\text{K} \pm 0.15\text{K}$ . "Additionally, we included the measured set field from our magnet, which was retrieved from Electron Paramagnetic Resonance (EPR) spectra for specific fields. This allows us to compare the field set in the dilution refrigerator and attempt to record it using the SENIS Hall Probe for

another form of sensing the magnetic field.", says David Schmoll, PhD student. The voltage was measured with a Keithley DMM6500 6.5 Digit Multimeter, and the magnet used in the dilution refrigerator is an AMI superconducting vector magnet. The EPR spectra were recorded with a sample of DPPH.



"Customers appreciate our Cryogenic 3D high-precision transducers because they allow the measurement of the magnetic field vector and its strength with unprecedented accuracy and repeatability at cryogenic temperatures. The 3D Hall probe is compact and has a miniature field-sensitive volume. Customized Cryogenic Hall probes are also available upon request"

- SENIS AG



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INVENTIVE



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### About SENIS

SENIS Group, Switzerland, develops, manufactures, and supplies advanced sensors and instruments for magnetic field and electric current measurements, along with corresponding development and engineering services. Our solutions and services are designed to assist clients in the automotive, consumer electronics, test and measurement industries, as well as research institutes, in creating powerful, robust, and effective products. The SENIS® Cryogenic 3D Transducer K3A, applied at the Nanomagnetism and Magnonics Group at the University of Vienna, is a cryogenic low-noise magnetic field transducer. It accurately measures the amplitude and direction of magnetic fields at cryogenic temperatures down to approximately 1 K. This transducer finds applications in Physics Laboratories, Universities, and Industry.