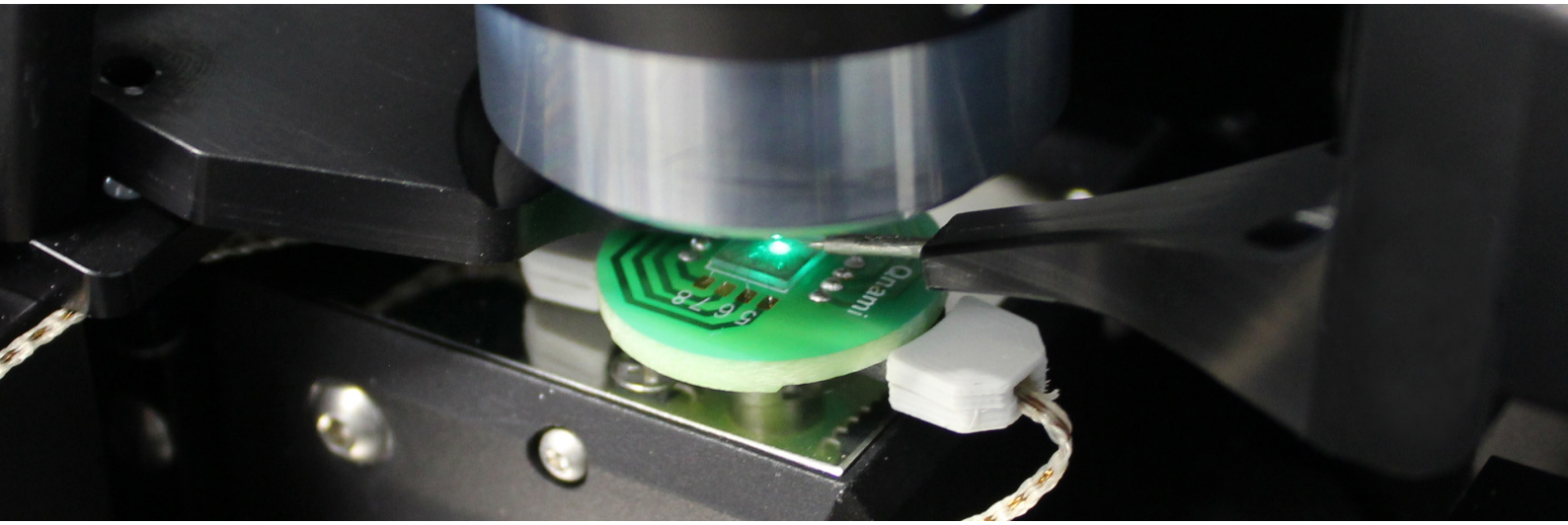
Qnami

the quantum wave

Vario PQ

Characterize devices in working conditions

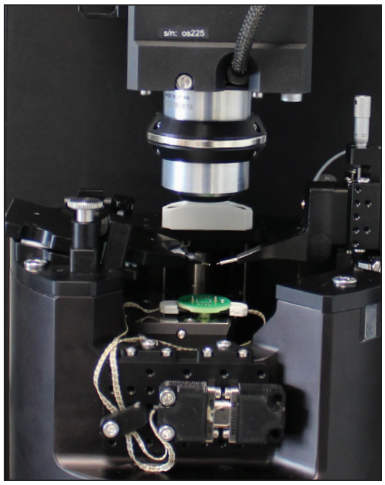


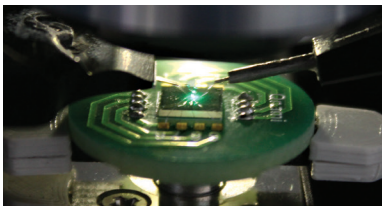
March 2022

Vario PQ

Product Overview

Vario PQ allows the application of external currents and voltages to the sample, while performing scanning NV measurement. It consists of 8 separate electric lines which are provided to the sample holder via 2 x 2 twisted pair cables.

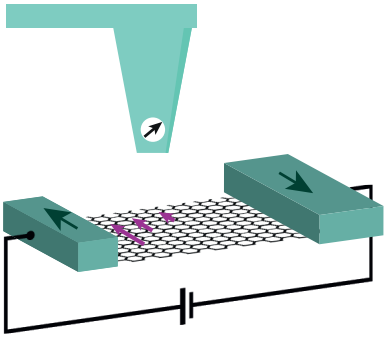




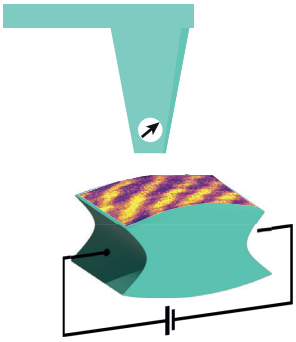
Technical Specifications

- Operation mode:
  - Limits for signal transmission: 100 V_{RMS}/150 V_{peak} per pin
  - Limits for power transmission: 22.5mA per pin
- Total amount of leads: 4x2
- Nominal cable length (2x twisted pairs): 20 cm
- Frequency range: DC - 1MHz
- Micro D-Sub connector
- Operation conditions:
  - temperature: -55°C to 100°C
  - humidity: < 75%

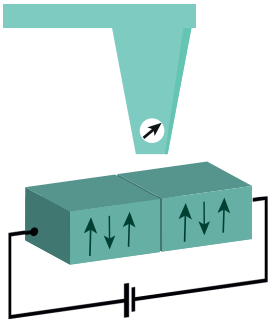
Applications



Transport measurement in 2D materials
Sample: Graphene
Nature 583, 537–541 (2020)
PI: R. L. Walsworth, University of Maryland



Multiferroics magnetic textures under piezo induced strain
Sample: $BiFeO_3$
Nat Commun 11, 1704 (2020)
PI: Garcia, Unité Mixte de Physique, CNRS, Thales



Domain switching in antiferromagnetic MRAM
Sample: Cr_2O_3
Nat Commun 8, 13985 (2017)
PI: D. Makarov, Helmotz-Zentrum Dresden

Qnami ProteusQ™

Combine Vario PQ with Qnami ProteusQ scanning NV microscope for direct quantitative measurement of the effect of currents and voltages applied on your sample.

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