Universität Stuttgart

Progresses on PETER Project

UNISTUTT

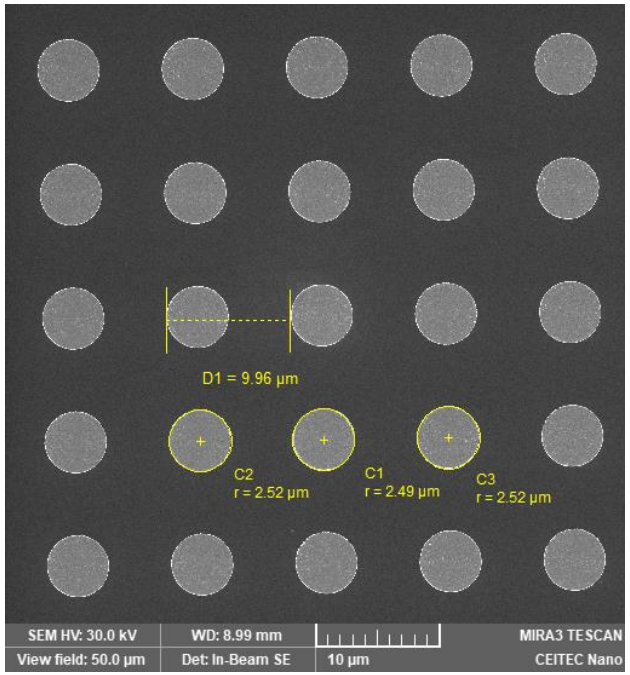
19th of March 2021

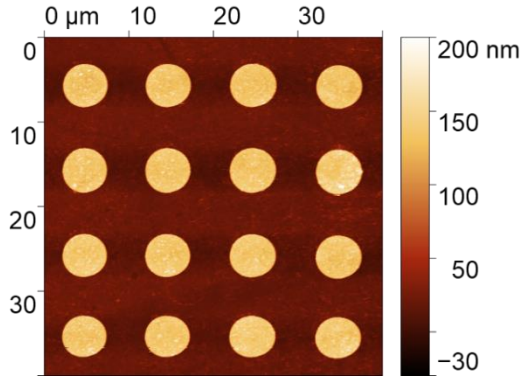
HFEPR measurements of NiFe disks

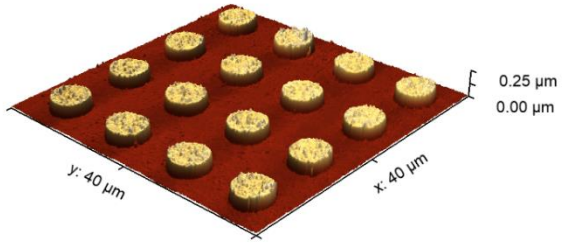
NiFe discs test sample:

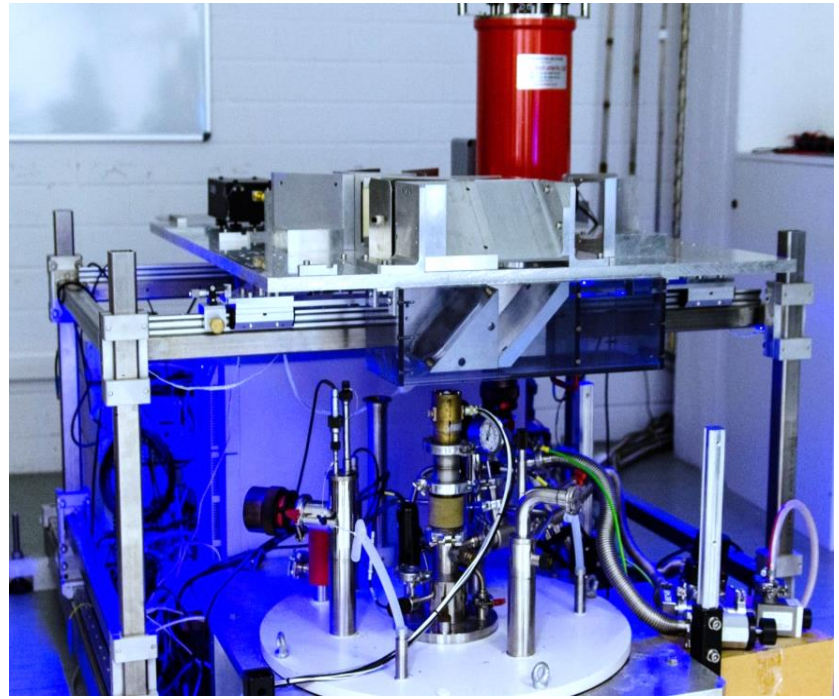
Sample layout:

NiFe discs (D=5 µm), periodicity of 10 µm
on fused silica substrate



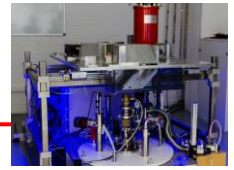


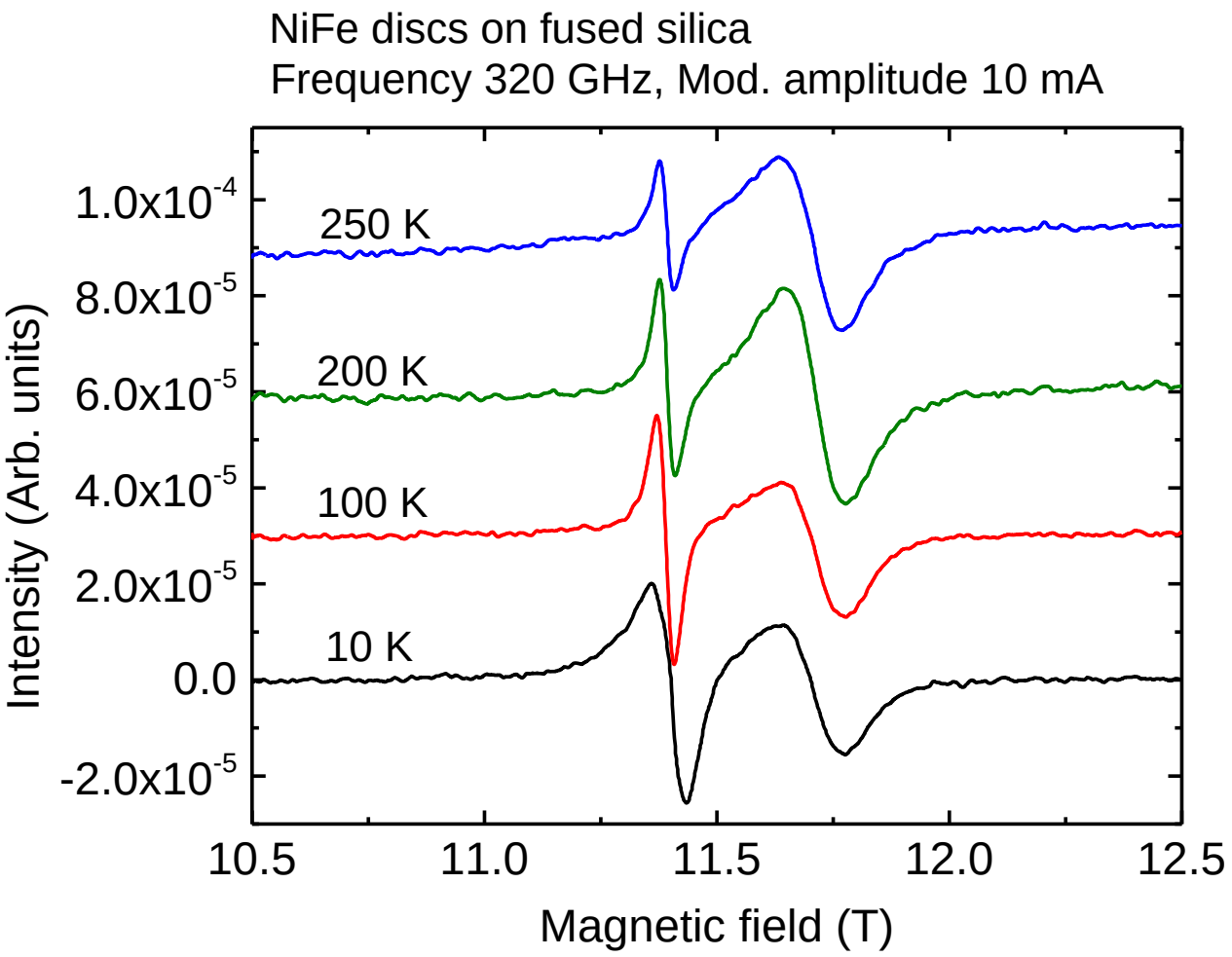


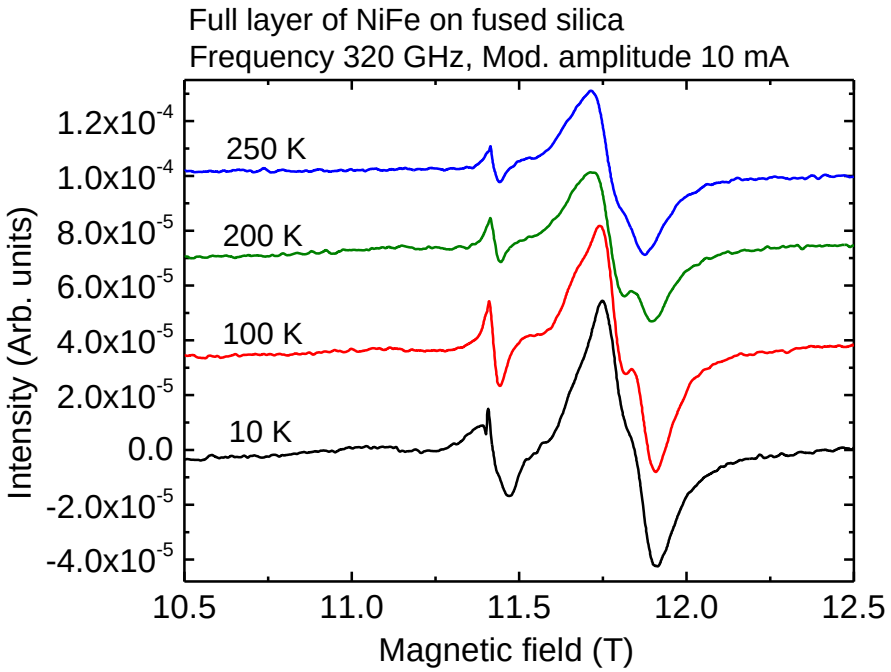


Surface coverage of NiFe: π/16 ≈ 20 %

HFEPR measurements of NiFe disks







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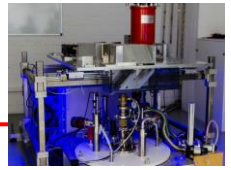

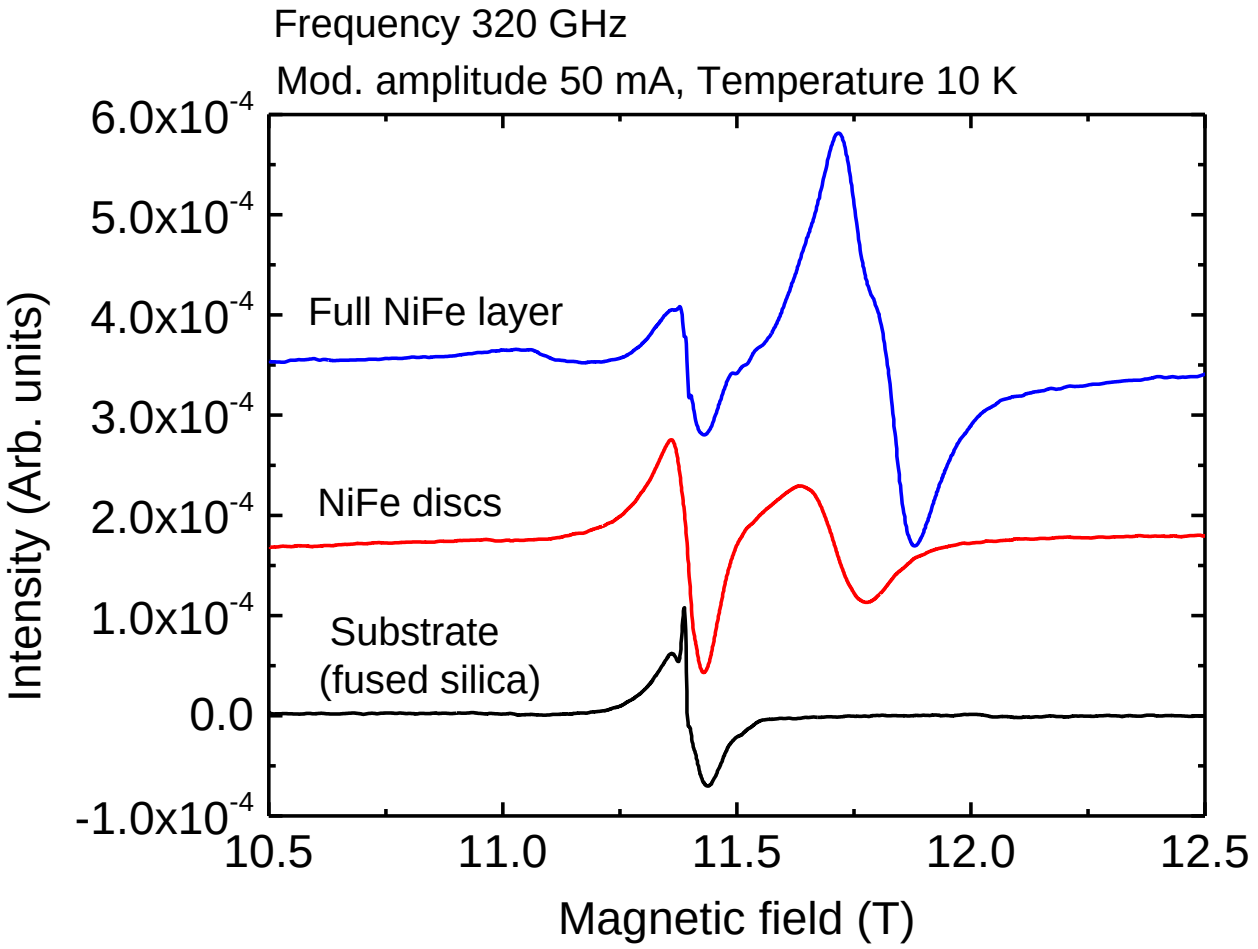

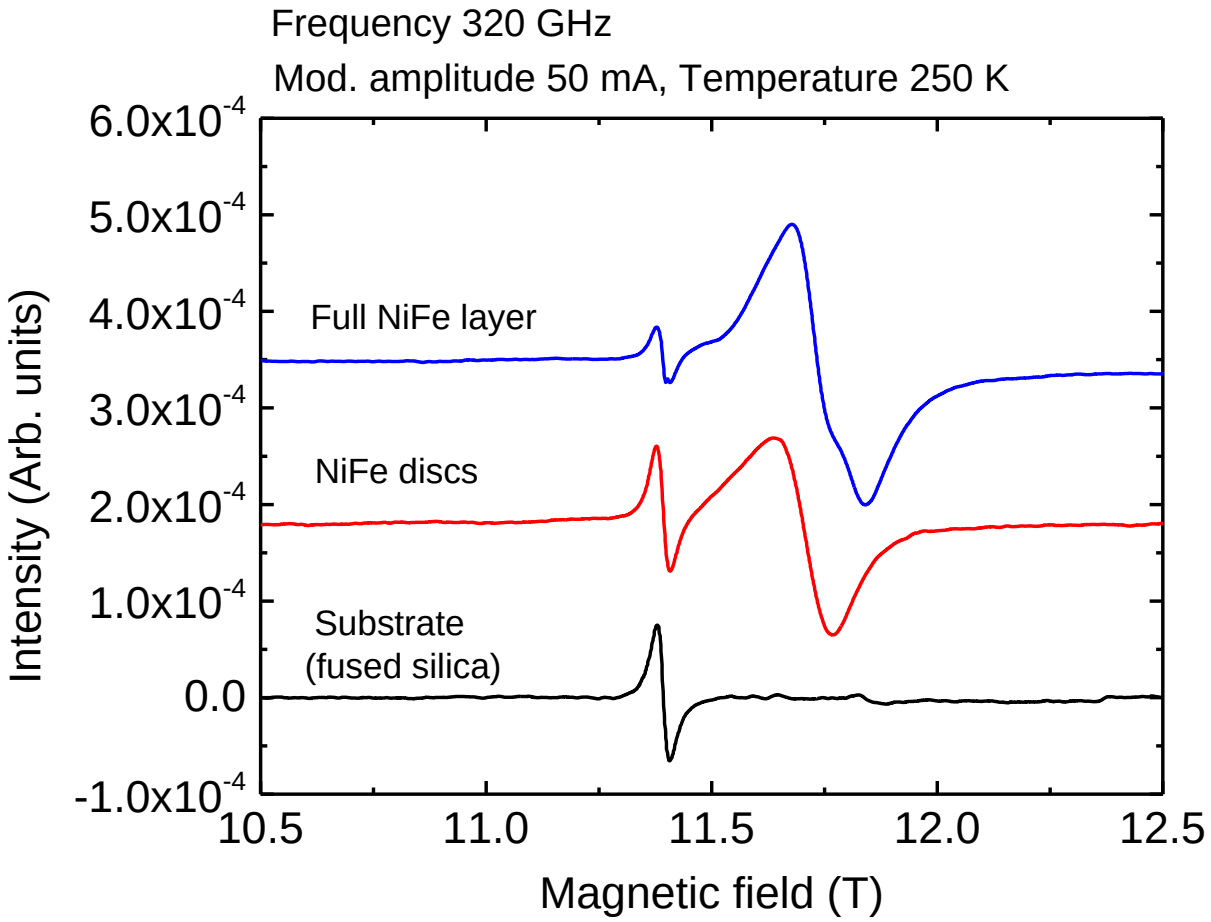

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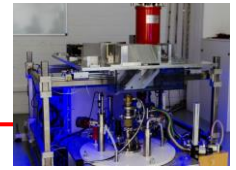

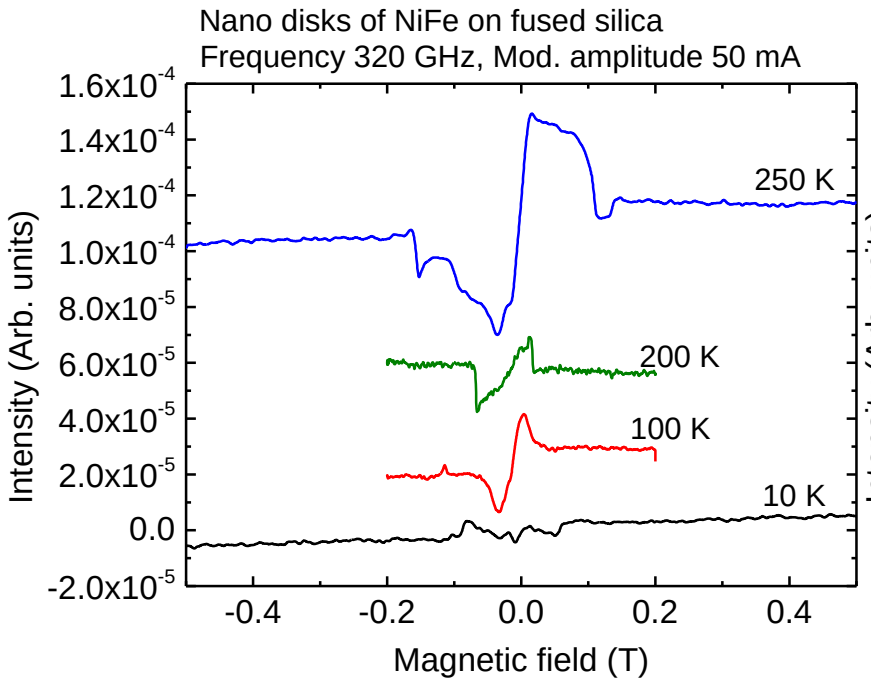

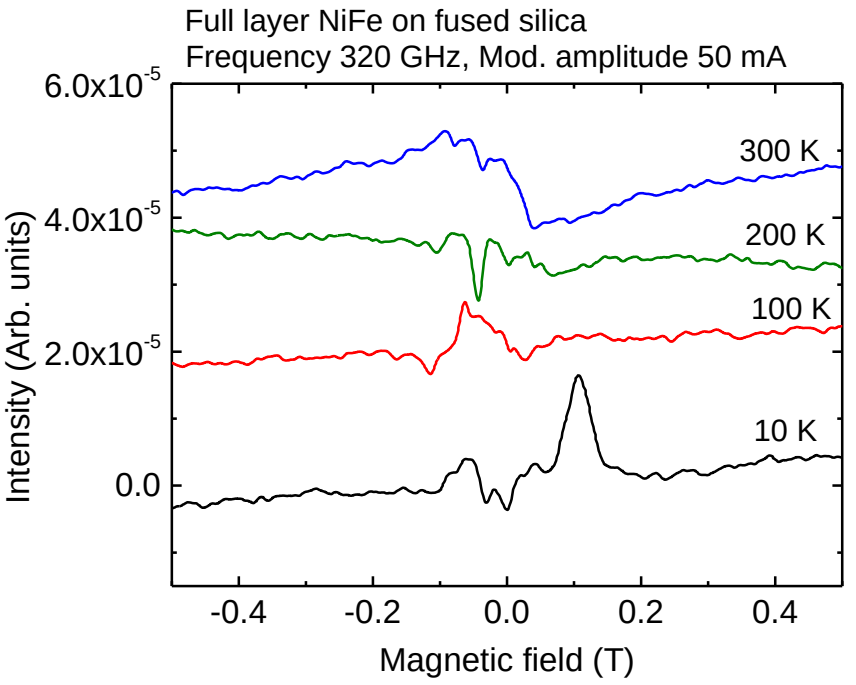

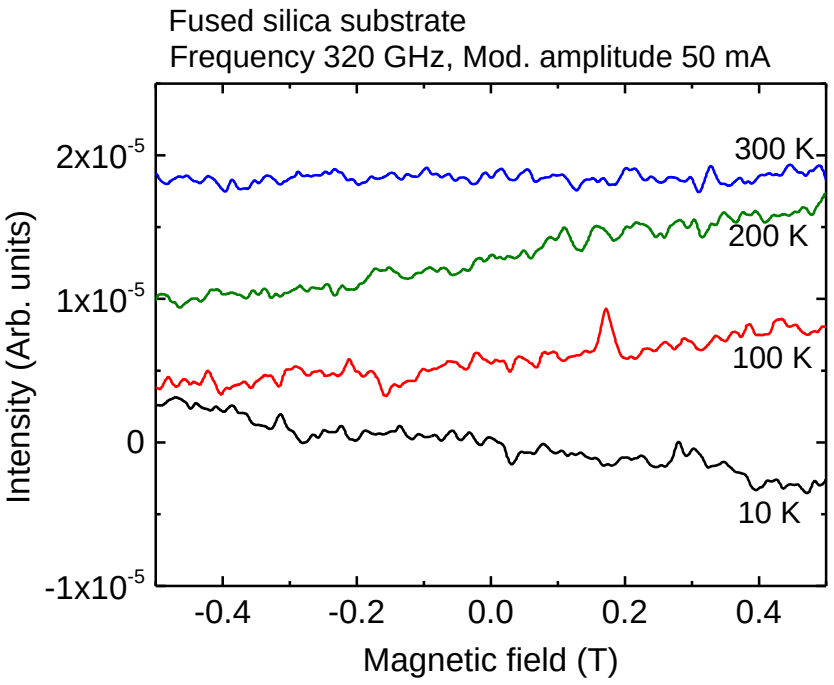

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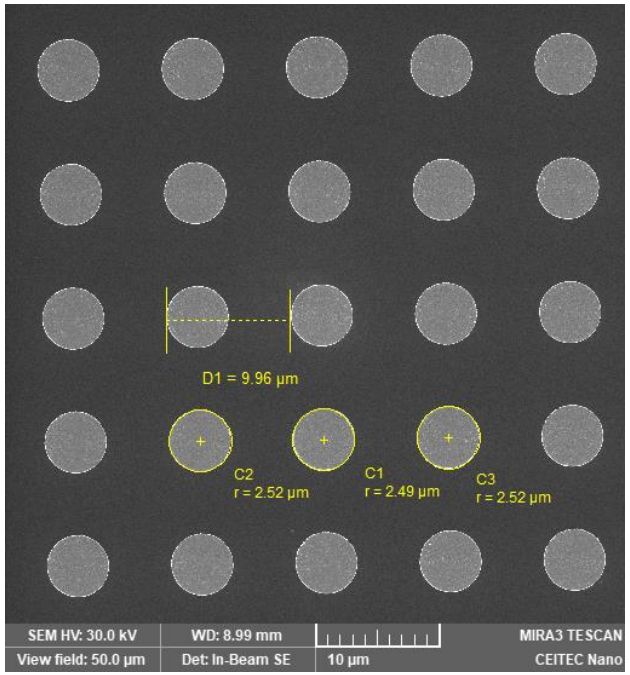

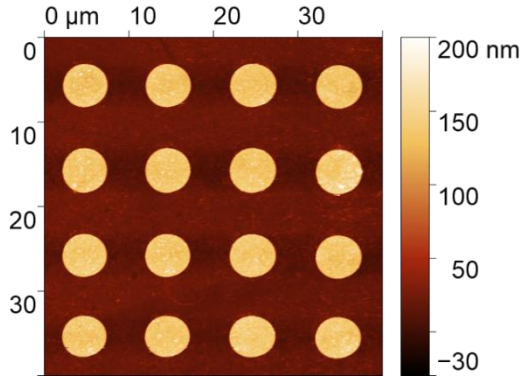

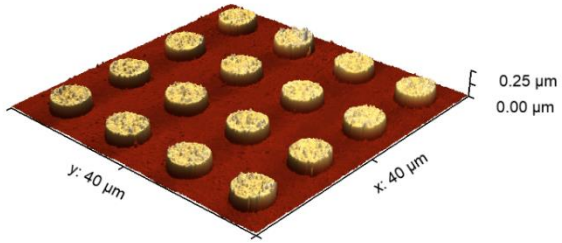

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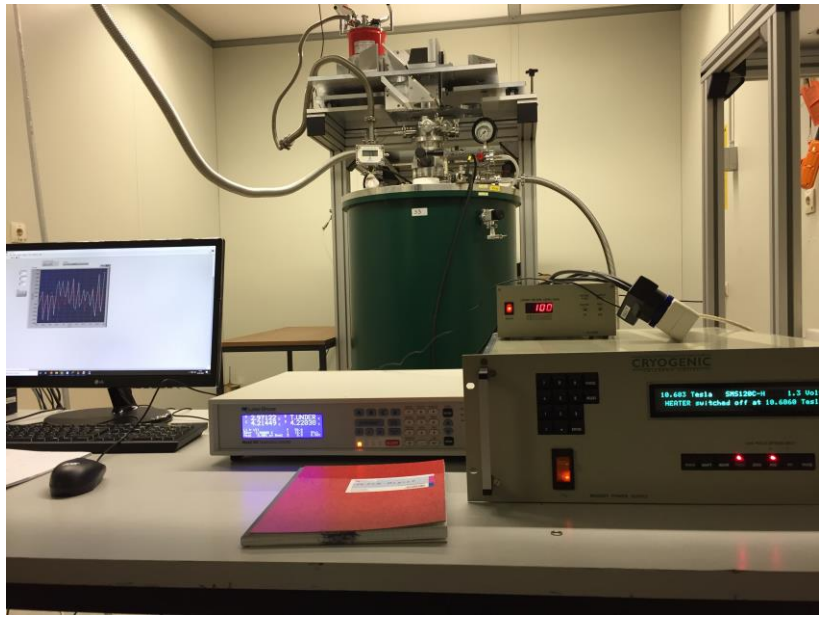
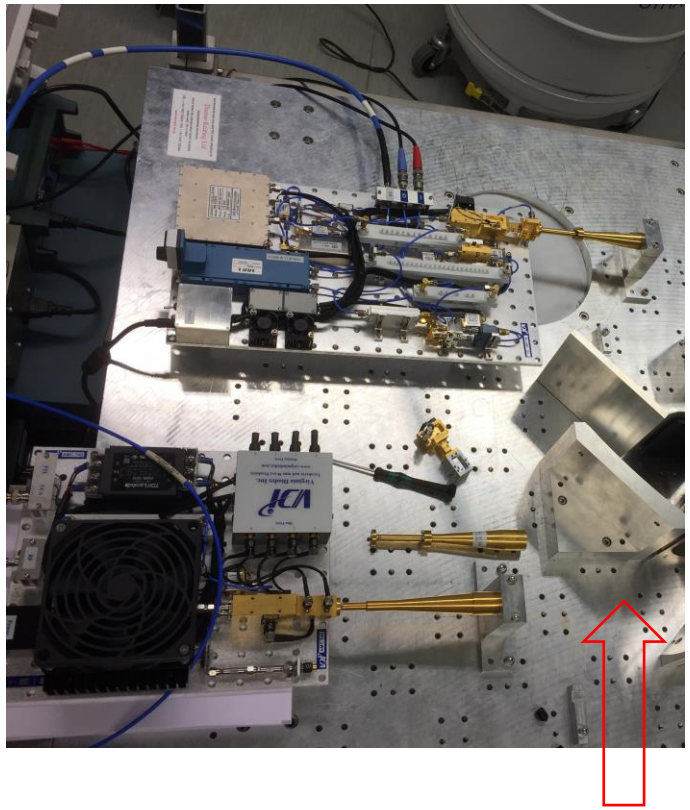
Results:

1) We have HFEPR signal at 0 T and g=2;
2) The signal comes from NiFe material;
3) The signal is independent from the disks shape



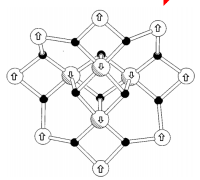
COMING SOON

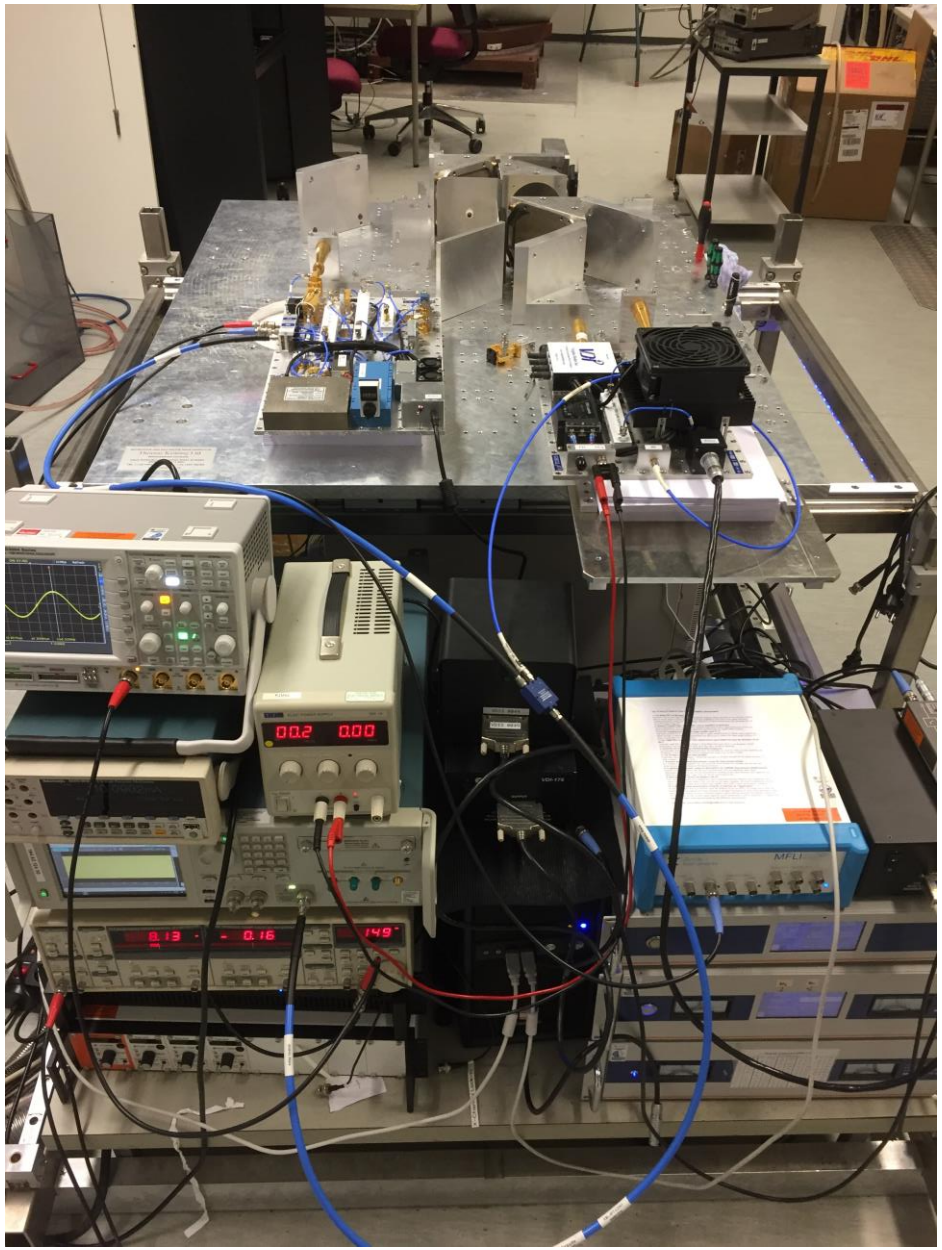
Test of the new Heterodyne Source/Detector at HFEPR quasi-optic setup



1) Tests of the source & detector without a quasi-optic setup;

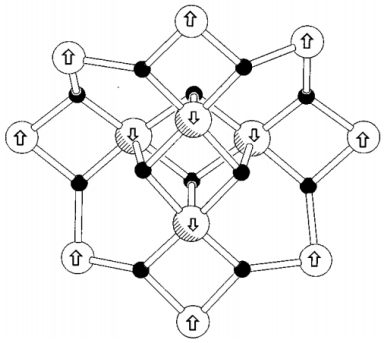
2) Tests using the HFEPR quasi-optic setup and Mn12 as standard.

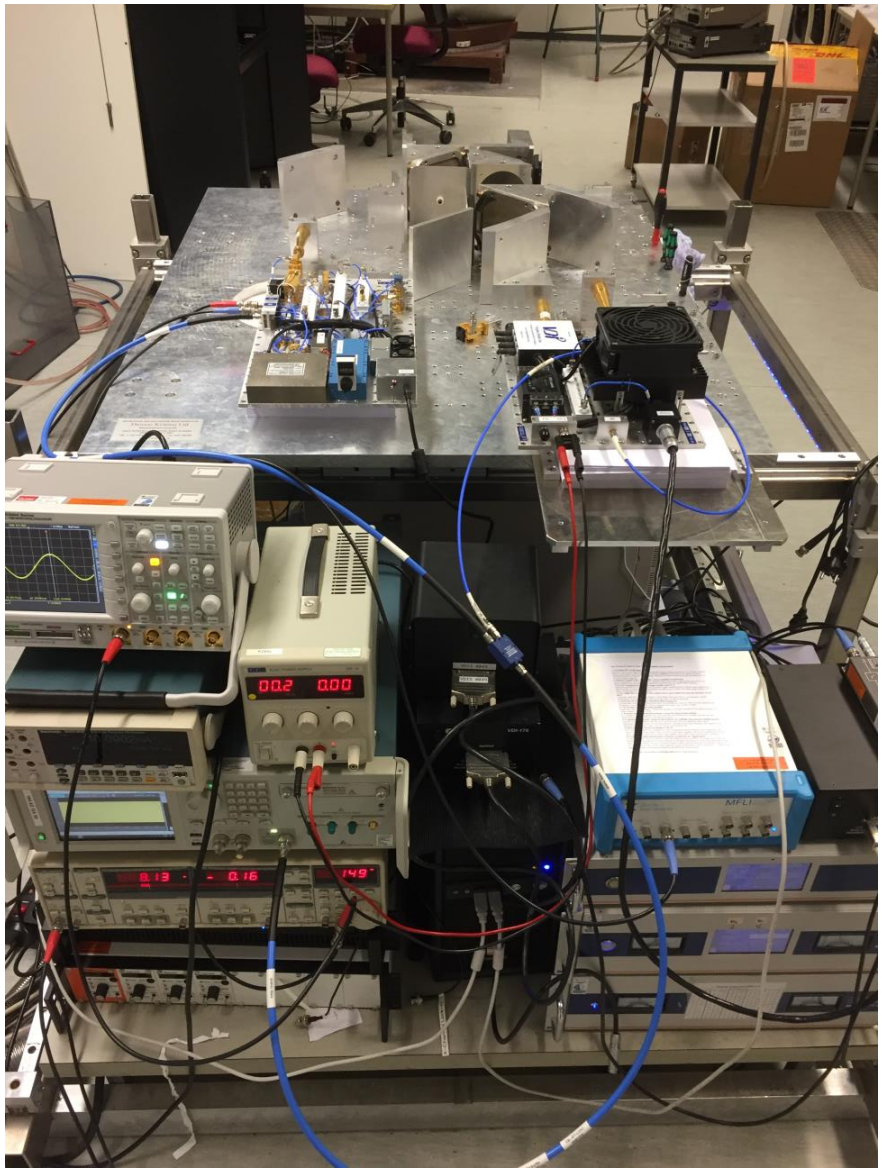




Test of the new Heterodyne Source/Detector at HFEPR quasi-optic setup

Mn12ac





Previously measured at HFEPR setup