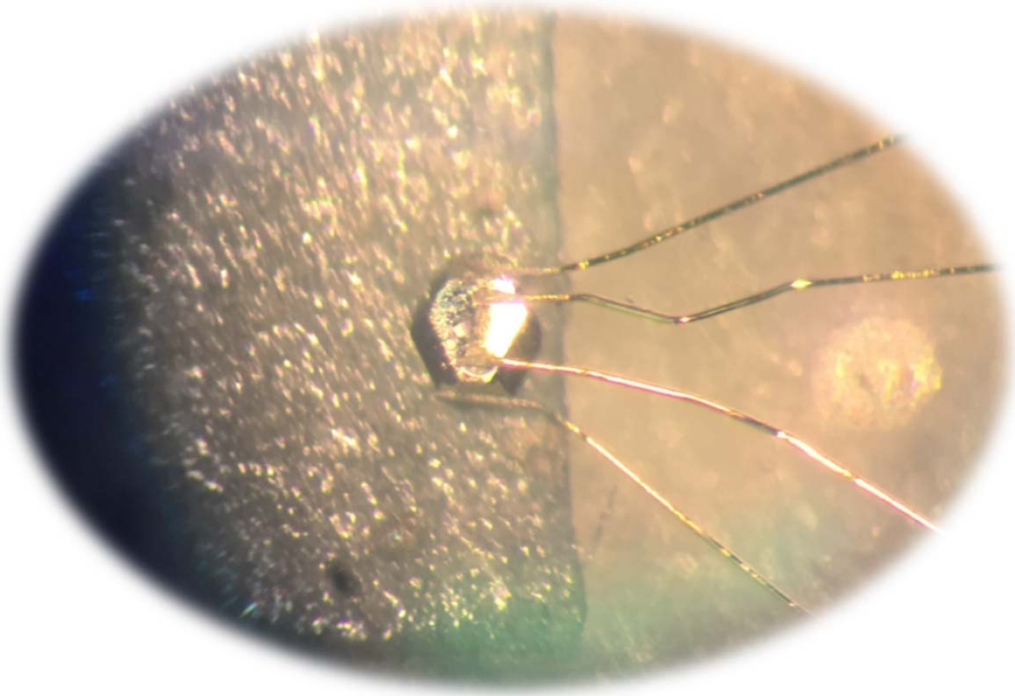
양자 극한 물성 연구실

Quantum Condensed Matter Physics Lab

in Extreme Conditions

2021. 11. 11 경북대학교 물리학과 대학원 설명회& 연구실 소개

연구 소개

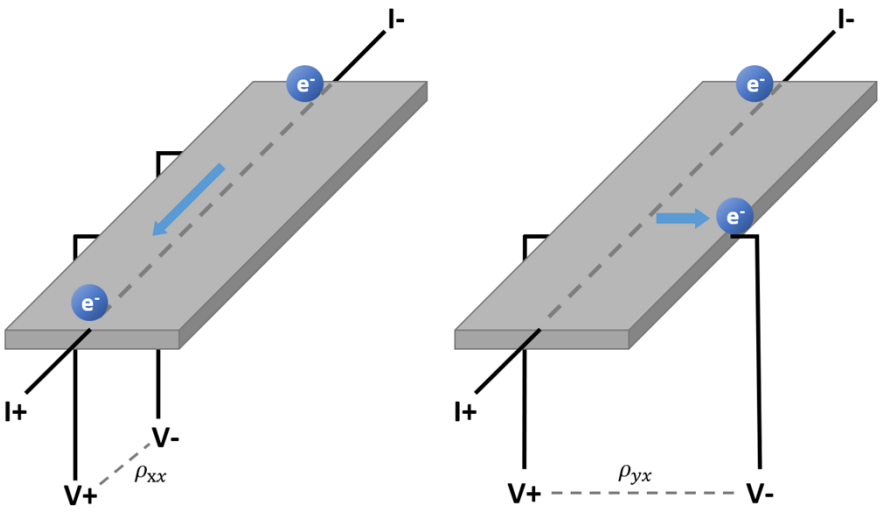


" 저항 측정"

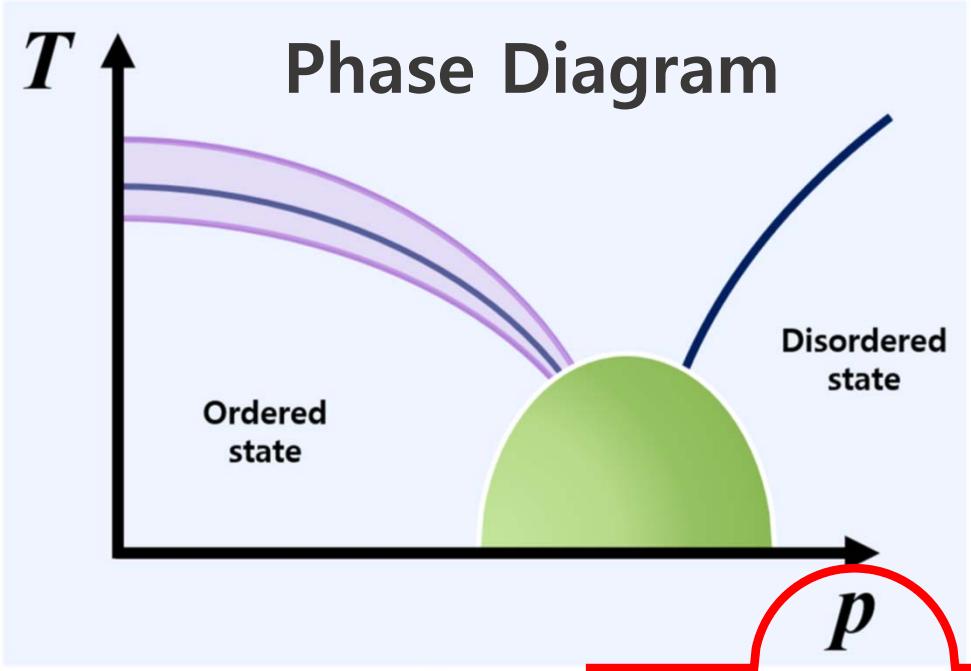
- **시료의 저항을 직접 측정**
- **소자의 저항을 측정하여 시료의 자성을 간접 측정**

연구 소개

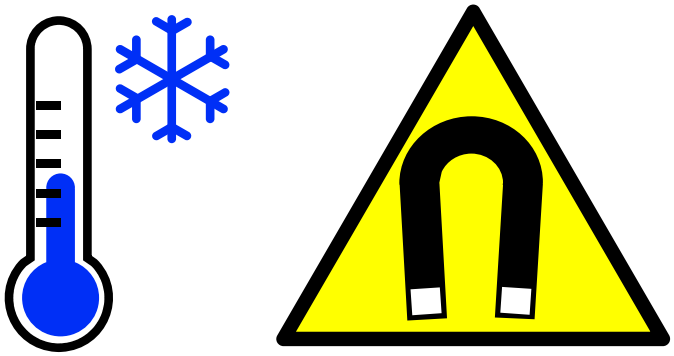
- 시료의 저항을 직접 측정



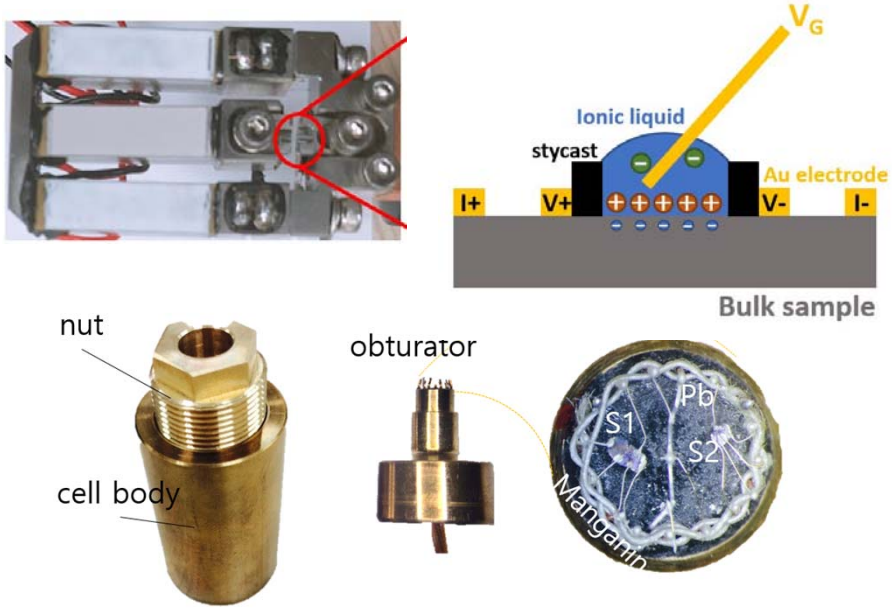
저항 종류



Magnetic field
Chemical doping
Uniaxial pressure
Isotropic pressure
Concentration
⋮

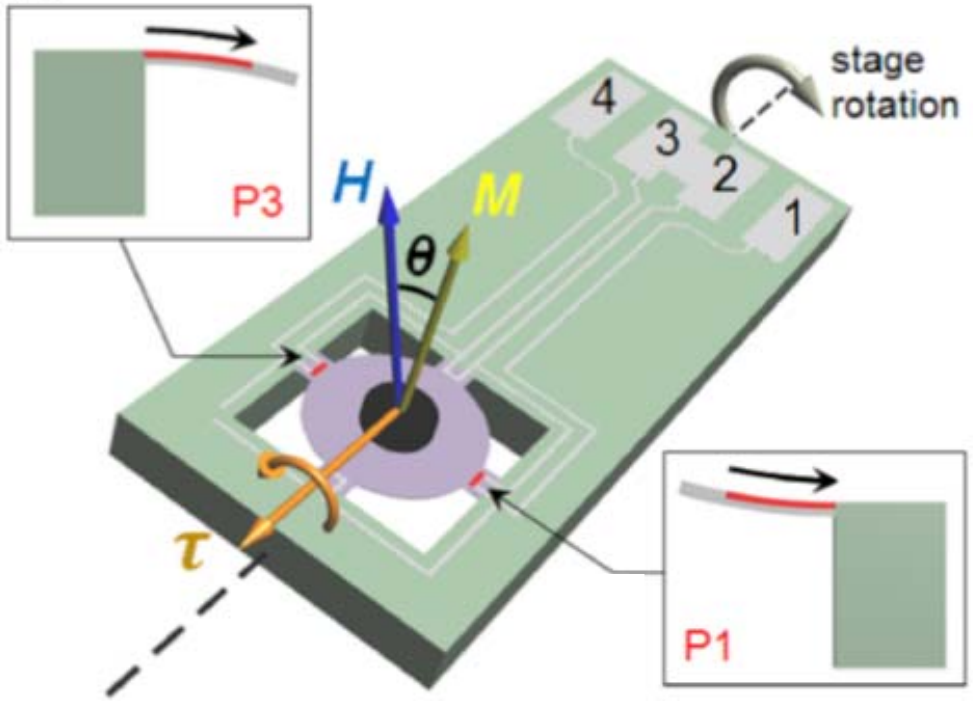


외부 환경 변화

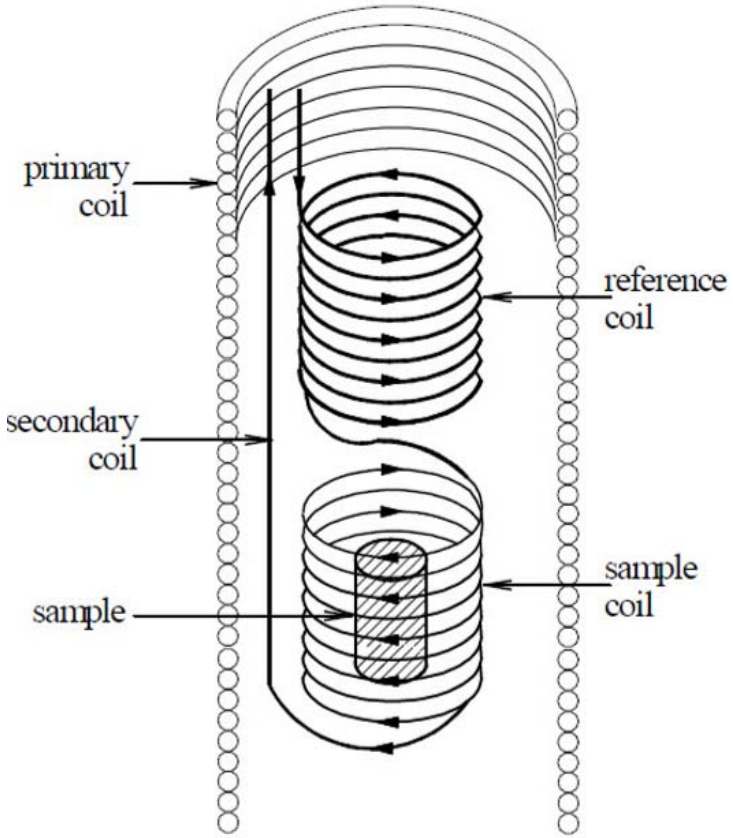


연구 소개

- 소자의 저항을 측정하여 시료의 자성을 간접 측정



토크 측정 소자

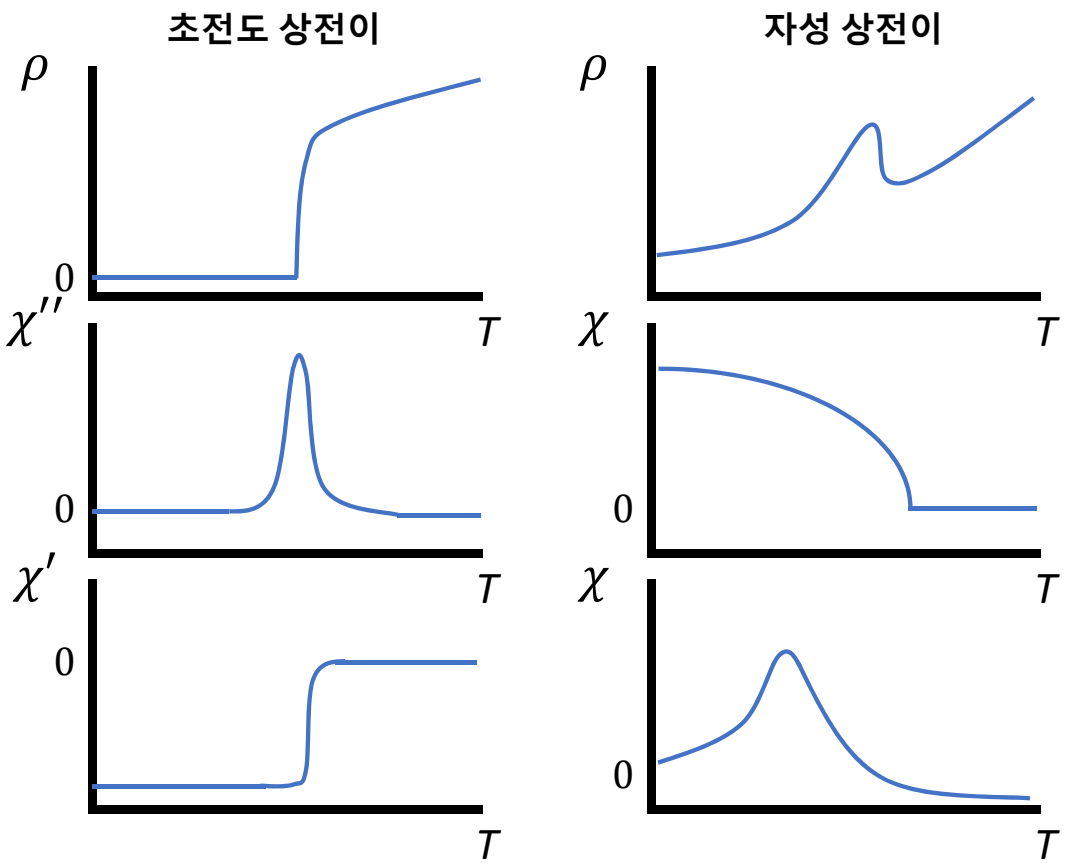


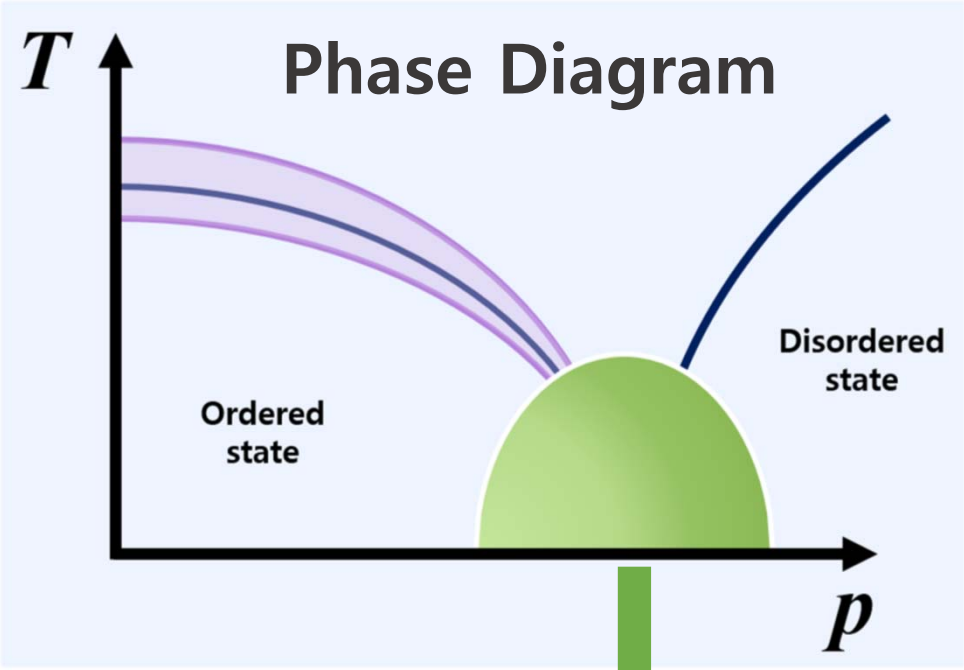
교류 자기감수율 측정 소자

H. Takahashi, *et al*., "New Method for Torque Magnetometry Using a Commercially Available Membrane-Type Surface Stress Sensor", *J. Phys. Soc. Jpn.* **86**, 063002 (2017).
C. Topping and S. Blundell, "A.C. susceptibility as a probe of low-frequency magnetic dynamics", *J. of Phys.: Cond. Mat.* **31**, 013001 (2019).
Lecture note on a.c. susceptibility measurement in high-Tc superconductors, University of Florida Advanced Physics Laboratory.

연구 소개

- 관심 분야





전자-전자 상호작용이 강한 물질

↓

특이한 물리적 현상

↓

원인 규명

↓

차세대 기술 활용