



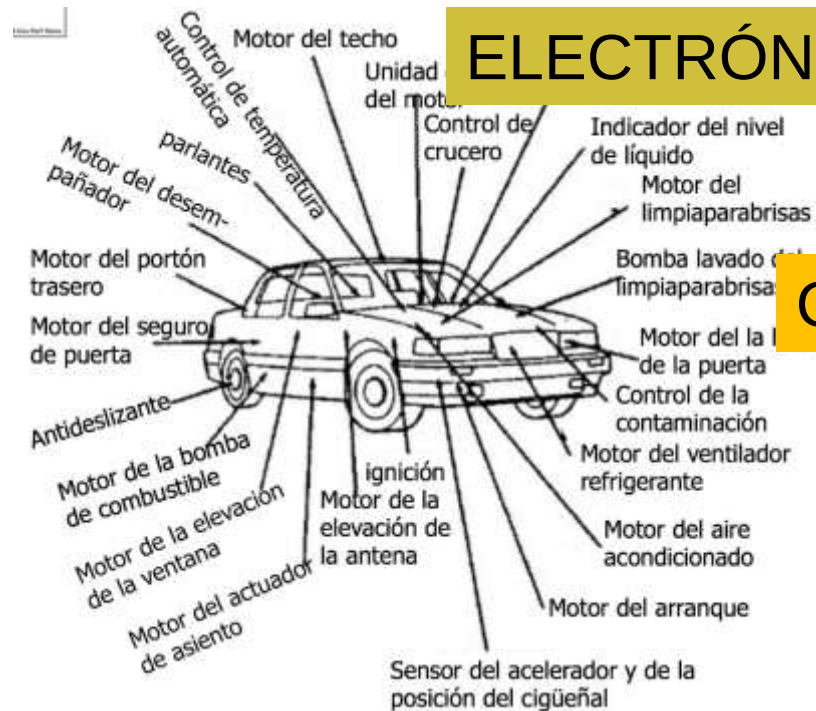
Magnetismo: Magnetometría de Muestra Vibrante

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ELECTRÓNICA



COMUNICACIONES



ENERGÍA



SALUD



Operating principle: Faraday's law

$$\varepsilon = -\frac{d\Phi}{dt} = -\frac{d}{dt} \int \vec{B} \cdot d\vec{A}$$

THE REVIEW OF SCIENTIFIC INSTRUMENTS

VOLUME 30, NUMBER 7

JULY, 1959

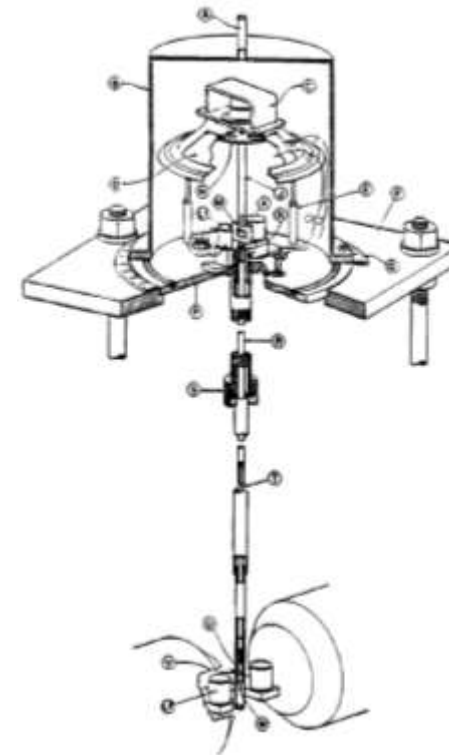
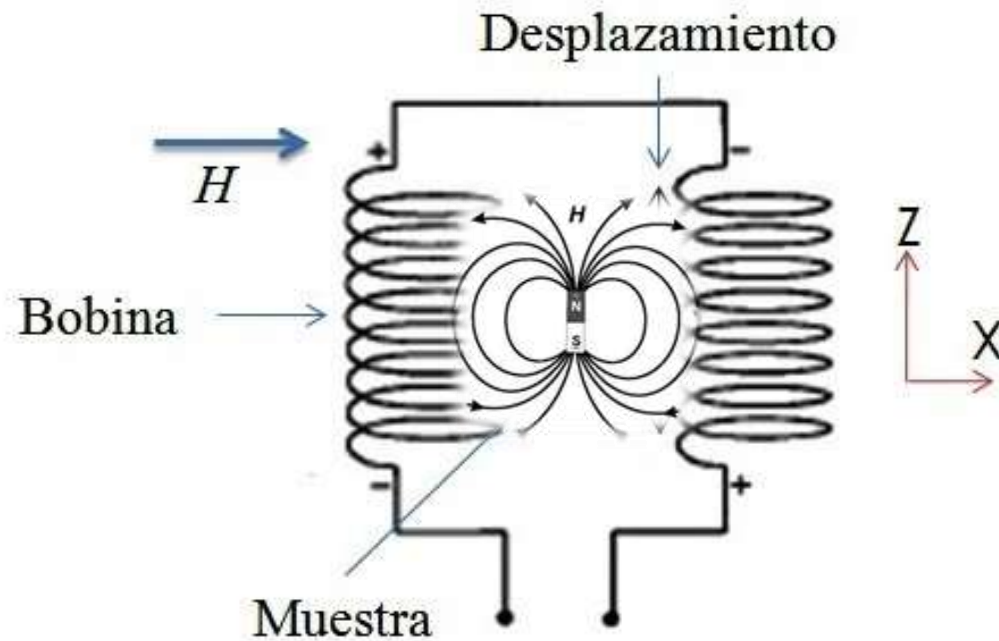
Versatile and Sensitive Vibrating-Sample Magnetometer*

SIMON FONER

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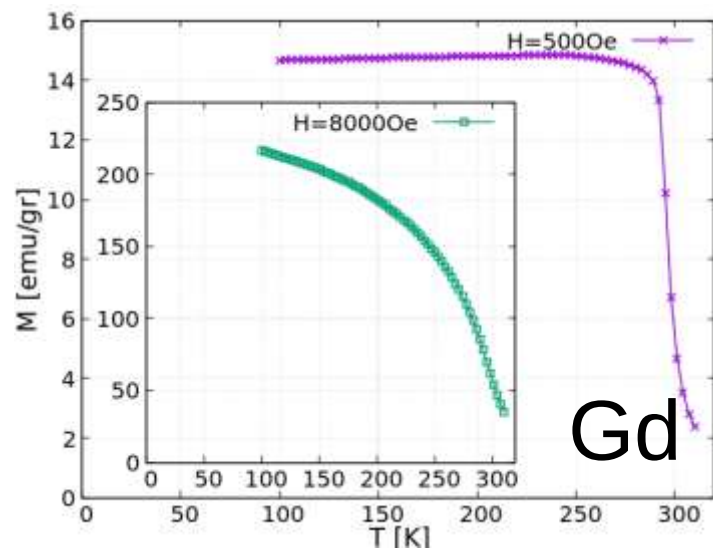
(Received January 15, 1959; and in final form, May 4, 1959)

A vibrating-sample magnetometer, which measures the magnetic moment of a sample when it is vibrated *perpendicularly* to a uniform magnetizing field, is described. With this instrument, changes as small as 10^{-3} to 10^{-4} emu have been detected, and a stability of one part in 10^4 has been attained. In addition to permitting convenient measurements in the usual laboratory electromagnet, this instrument eliminates or minimizes many sources of error found in other methods. It is simple, inexpensive, and versatile, yet permits precision magnetic moment measurements to be made in a uniform magnetizing field as a function of temperature, magnetizing field, and crystallographic orientation. The mechanical design and detailed operating characteristics are presented. Applications and limitations of the method are outlined.

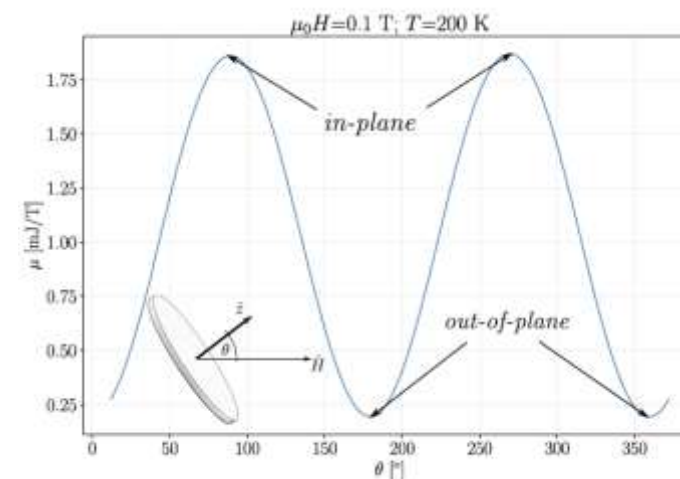
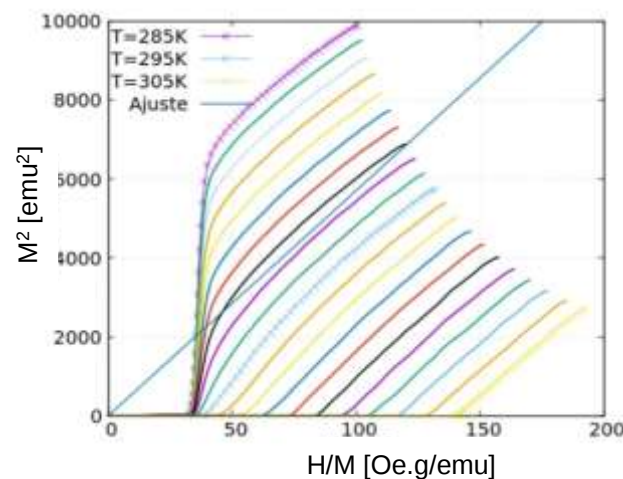
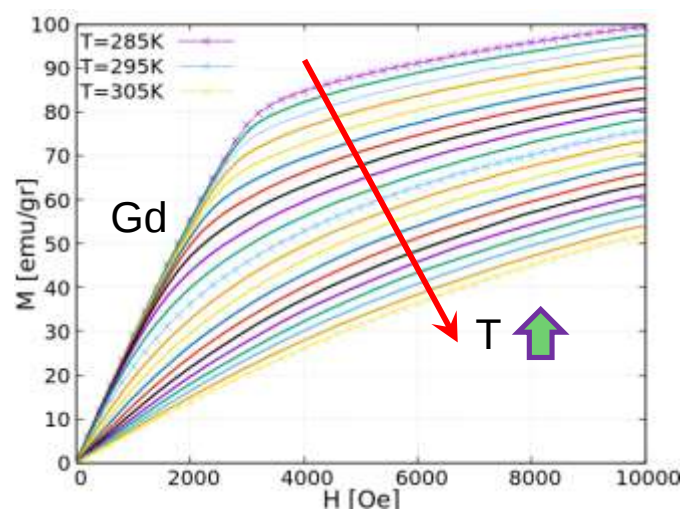
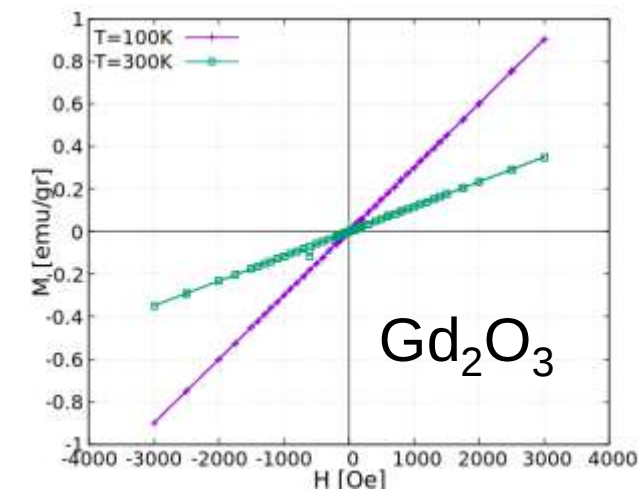
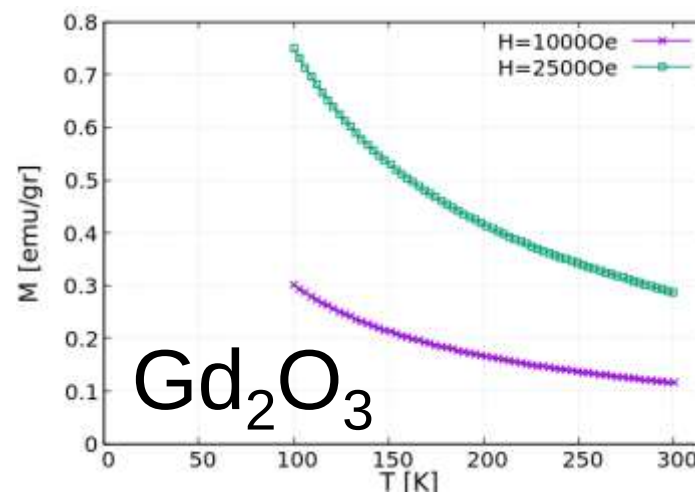


$M(H, T, t)$

Some examples

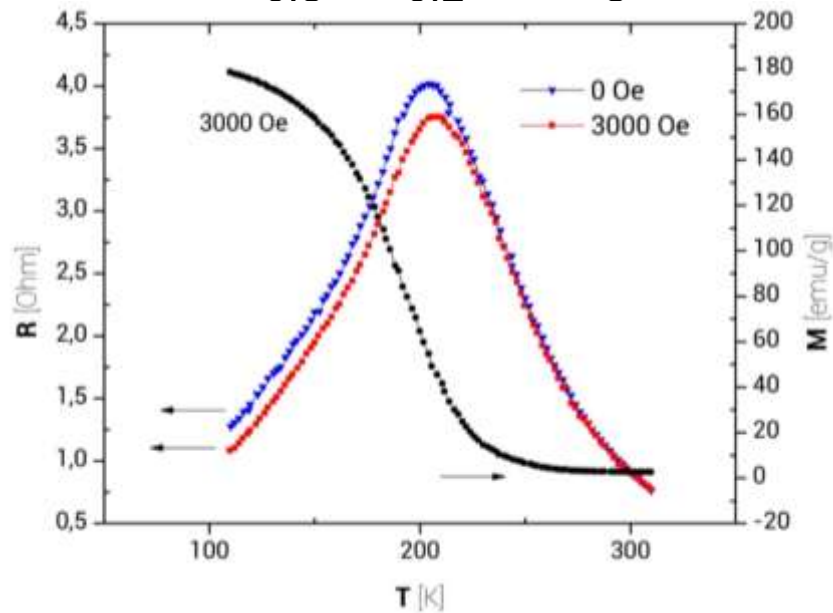
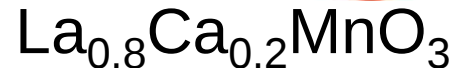
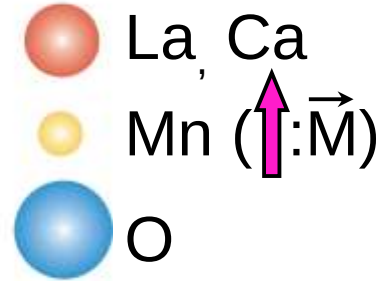
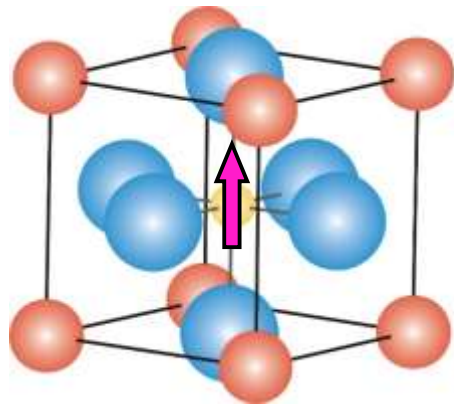


Boz - Puig (2016)

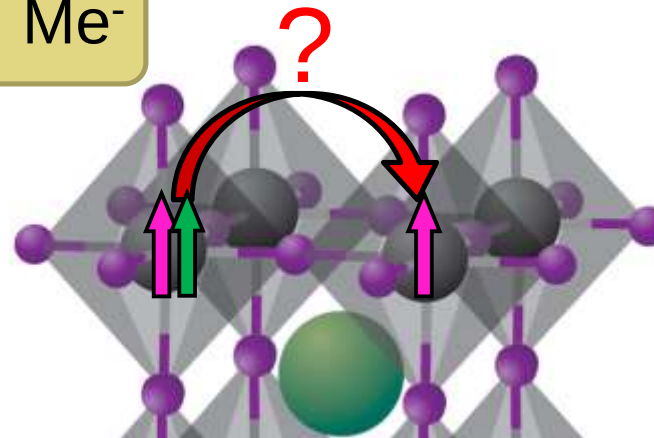
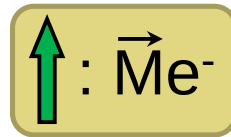
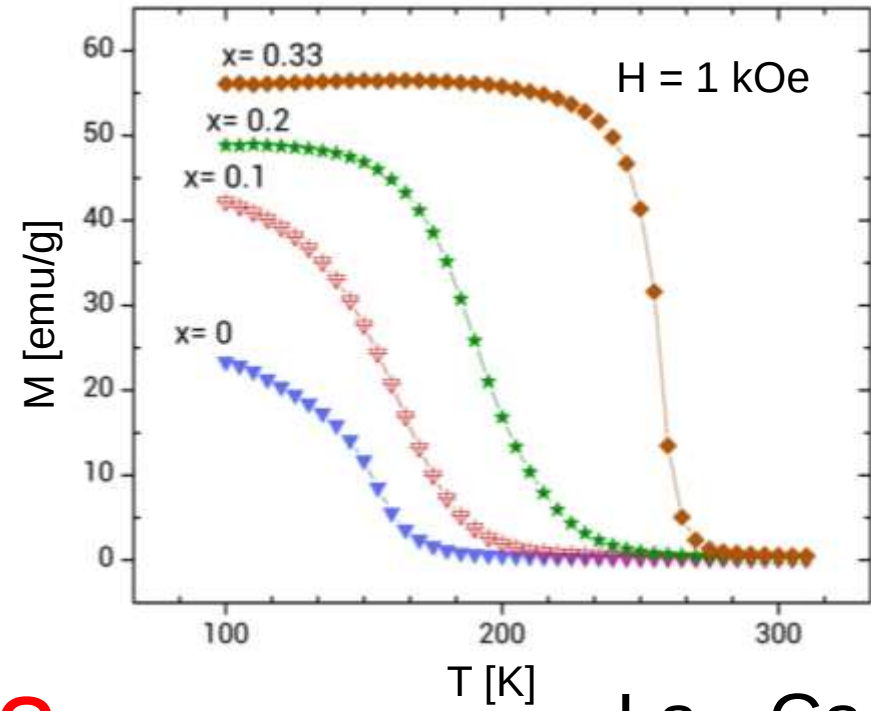


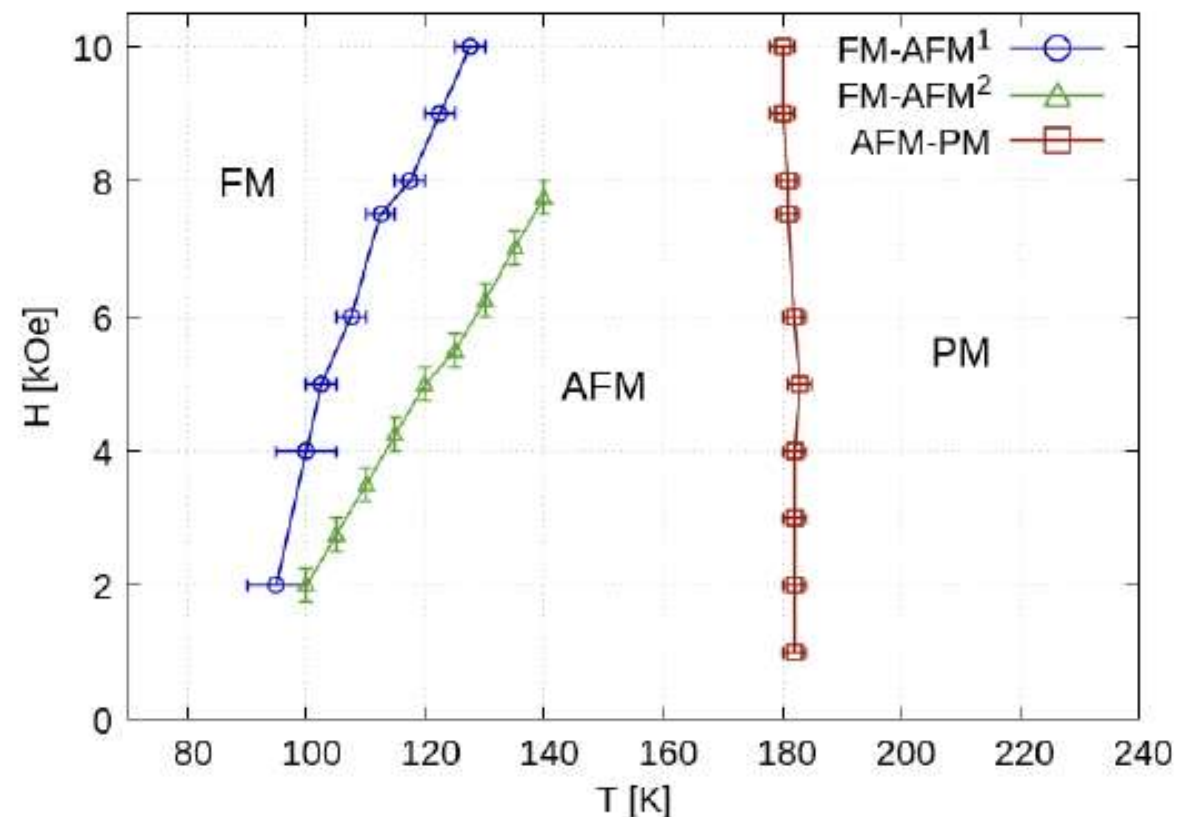
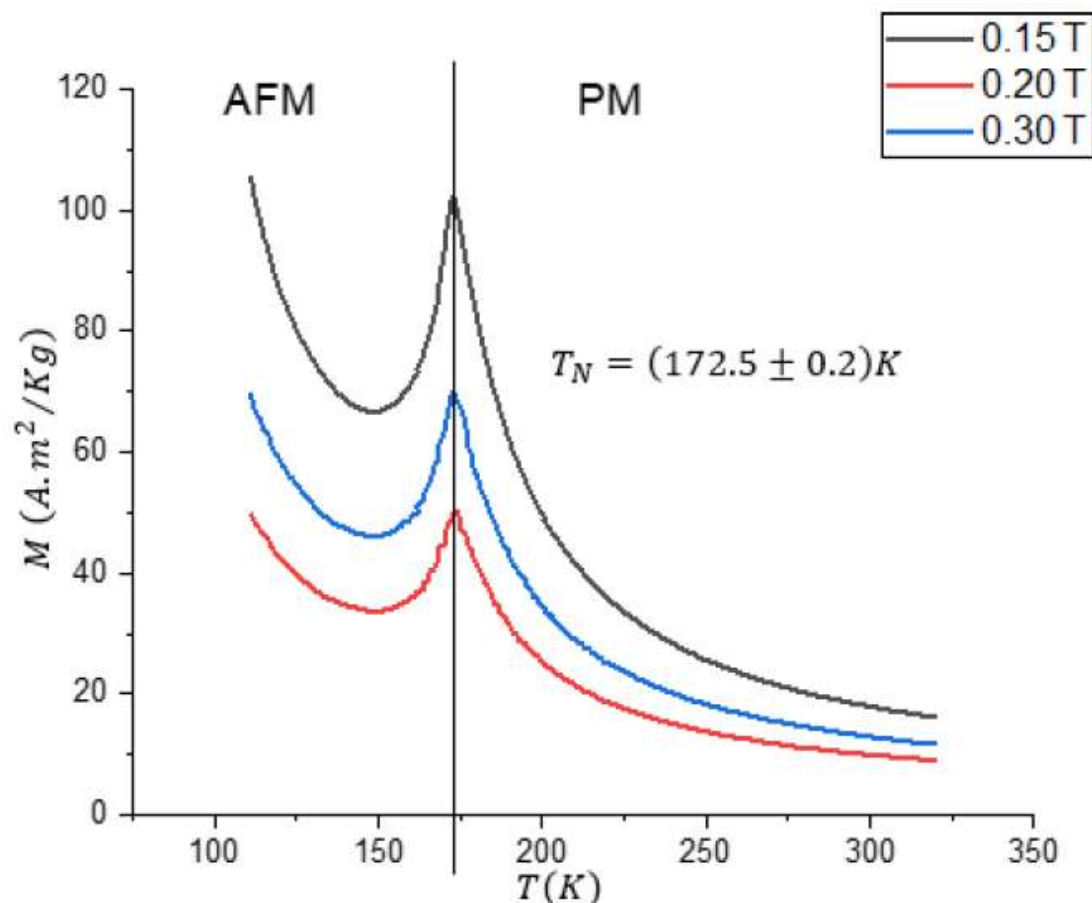
Influencia del factor demagnetizante

Some examples



Simonetto - González (2017)





Transiciones magnéticas en el Dy



Magnetic
Resonance
Division

Thank you for your attention!

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