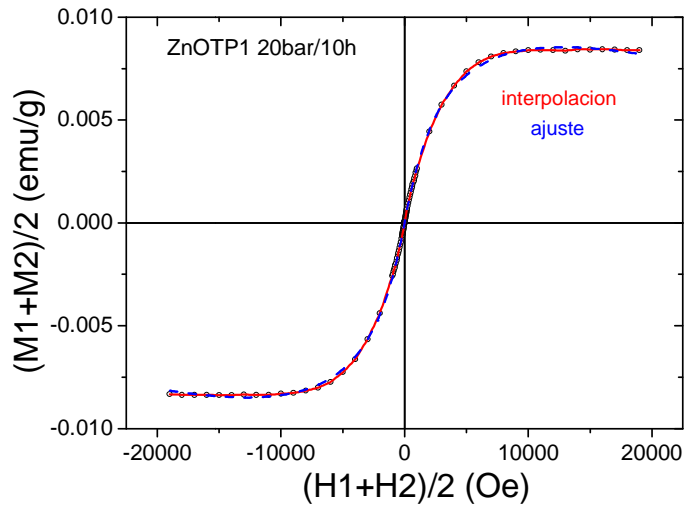


ZnO hidrogenado



Datos del ajuste

$$M(H, T) = N \int \mu L(x) f(\mu) d\mu + C_{par} H + Cte, \quad x = \frac{\mu_0 \mu H}{kT}$$

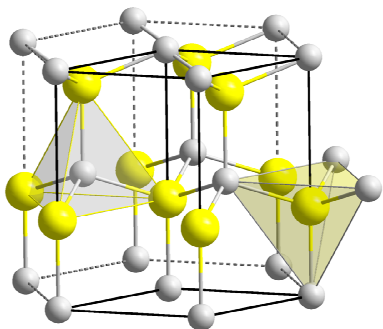
$$f(\mu) = \frac{1}{\sigma \sqrt{2\pi}} e^{-\ln(\mu/\mu^0)^2 / 2\sigma^2}$$

	valor	incerteza
σ	0.844	0.001
$\mu^0 (\mu_B)$	1102.0	0.6
$N (1/g)$	9.37e14	-
$C_{par} (emu/gOe)$	-1.86e-7	1e-9
$Cte (emu/g)$	3.14e-5	6e-7

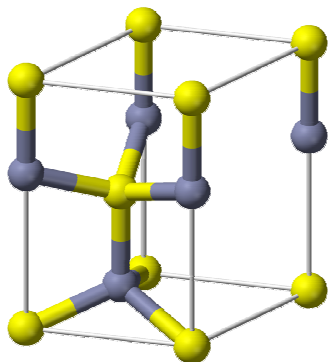
$$\langle \mu \rangle = \mu^0 e^{\sigma^2/2} = 1574 \mu_B$$

$$SD = \langle \mu \rangle \sqrt{e^{\sigma^2} - 1} = 1605 \mu_B$$

Datos del ZnO



masa molar=81.38 g/mol
densidad=5.606 g/cm³
hexagonal, $a = 3.25 \text{ \AA}$, $c = 5.2 \text{ \AA}$
2Zn, 2O por celda
volumen celda $V_c=0.0476 \text{ nm}^3$



si $\mu_m(\text{Zn}) = 1 \mu_B$
entonces, $V_p=1574 \cdot V_c/2=37.435$
 nm^3 y $D_p=4.15 \text{ nm}$