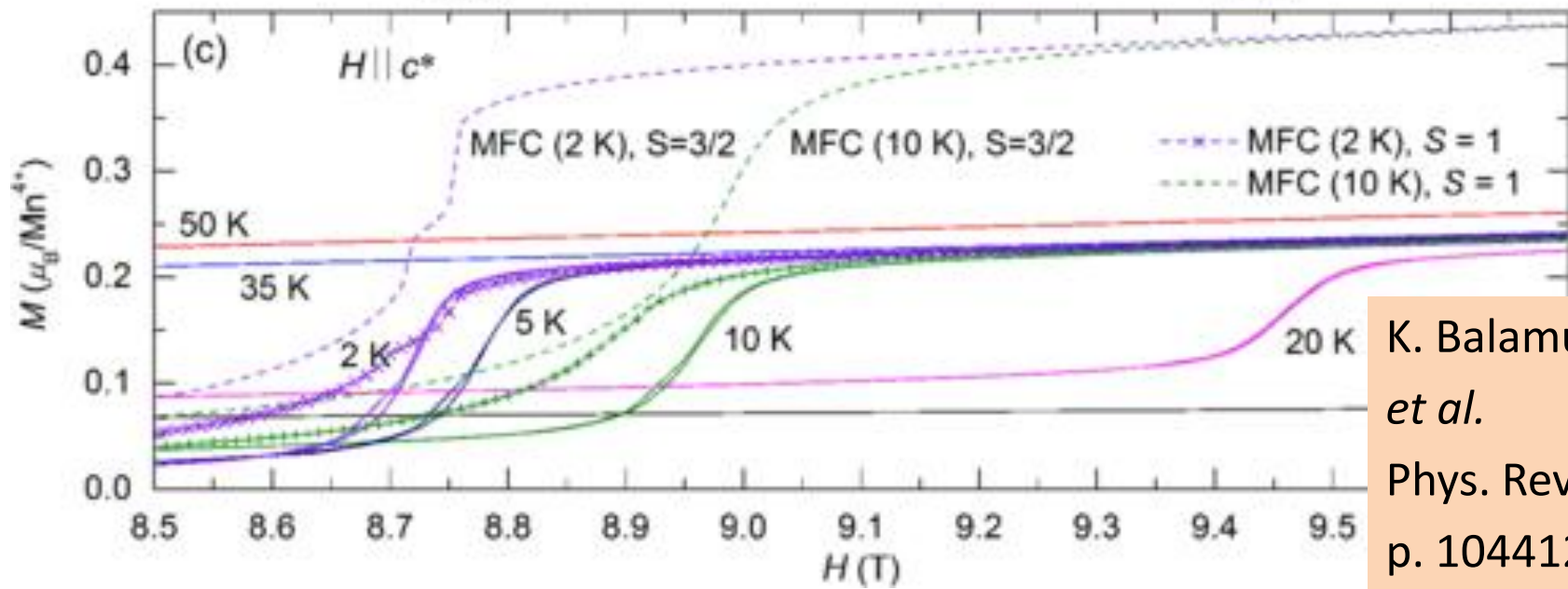
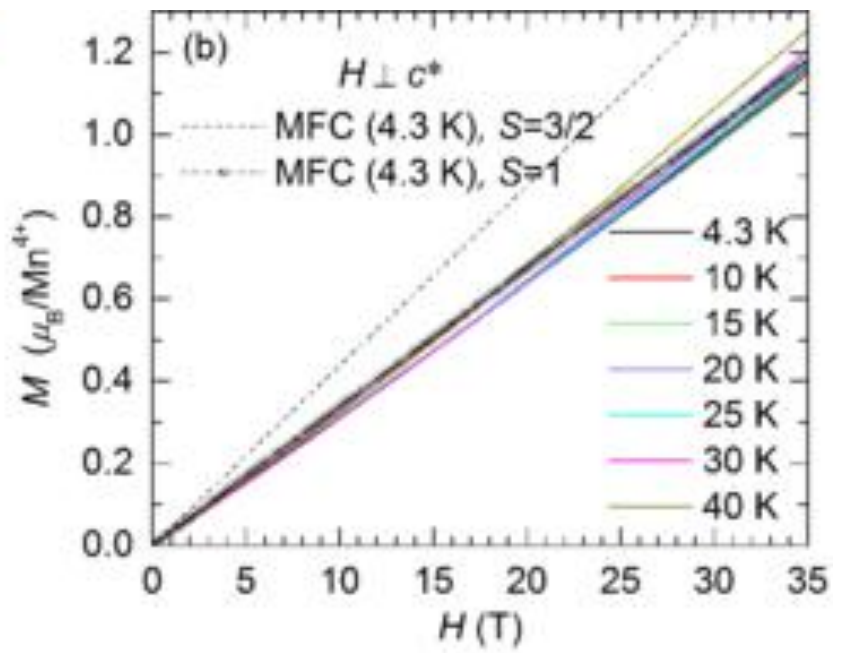
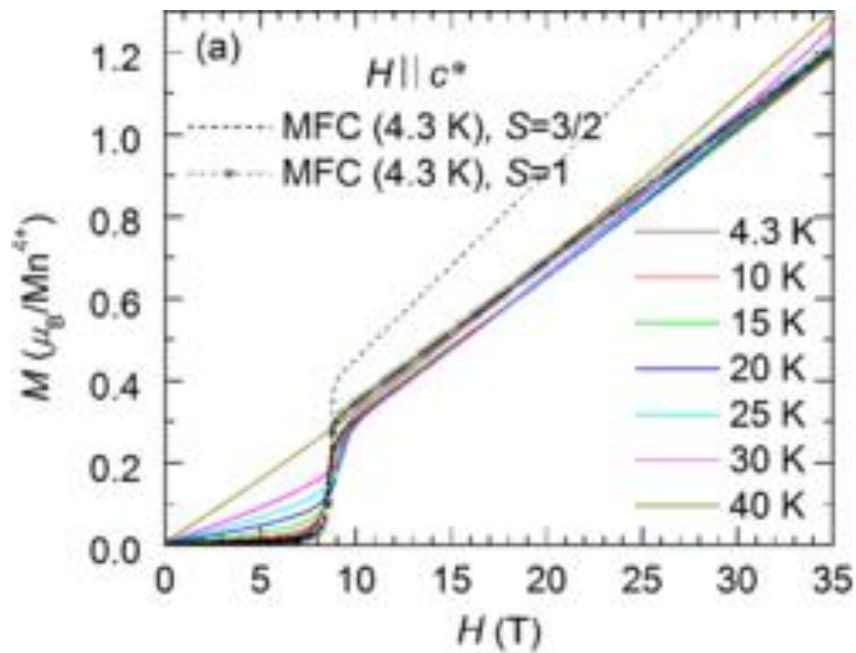


**Table 6.1. Some common antiferromagnets**

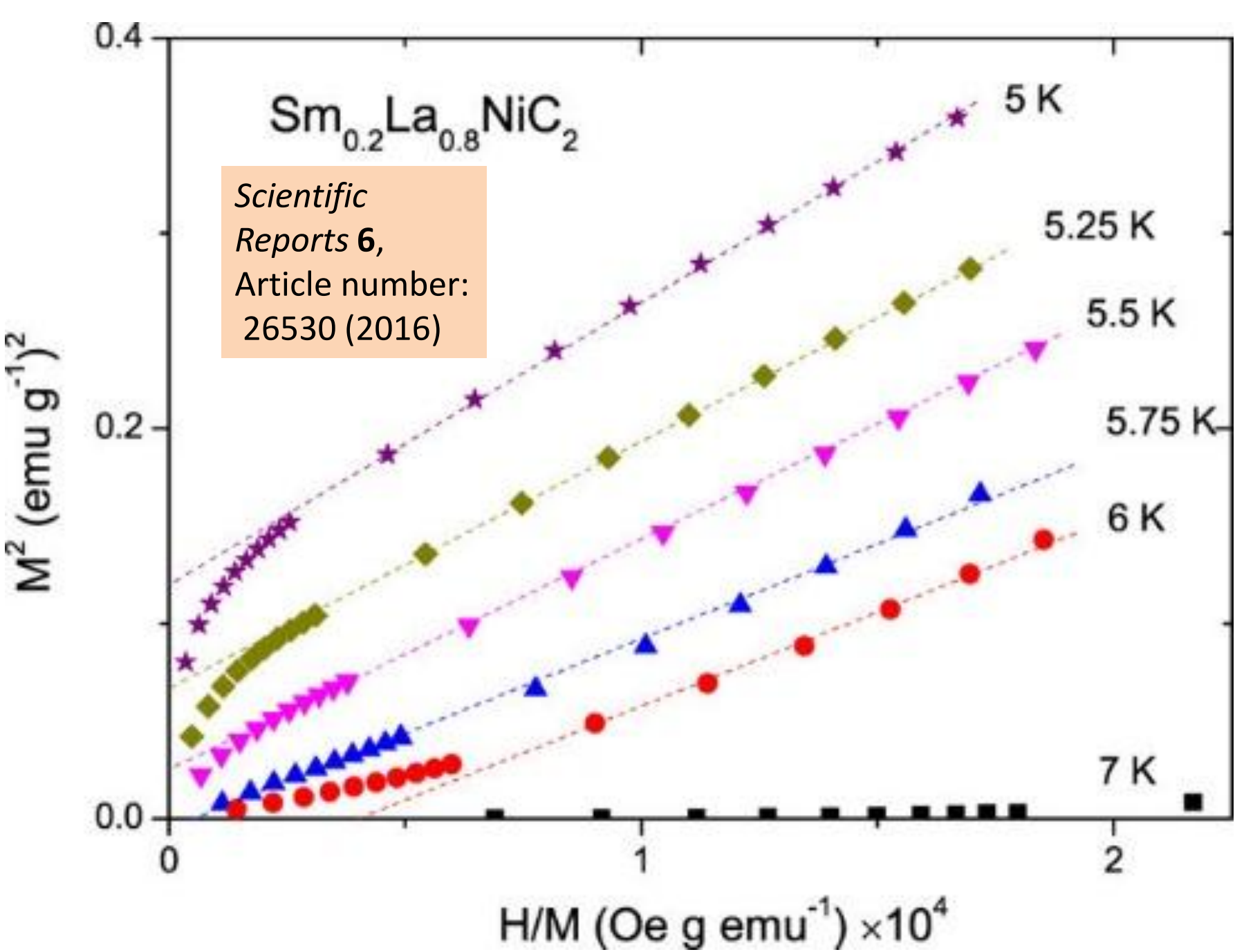
	Structure	$T_N$ (K)	$\theta_p$ (K)	$\mu_0 M_\alpha$ (T)
Cr	sdw	311		0.20
Mn	Complex	96	$\sim -2000$	0.20
NiO	Néel	524	$-1310$	0.54
$\alpha\text{Fe}_2\text{O}_3$	Canted	958	$-2000$	0.92
MnF <sub>2</sub>	Néel	67	$-80$	0.78
FeMn	Néel	510		0.53
IrMn <sub>3</sub>	Néel	690		0.50

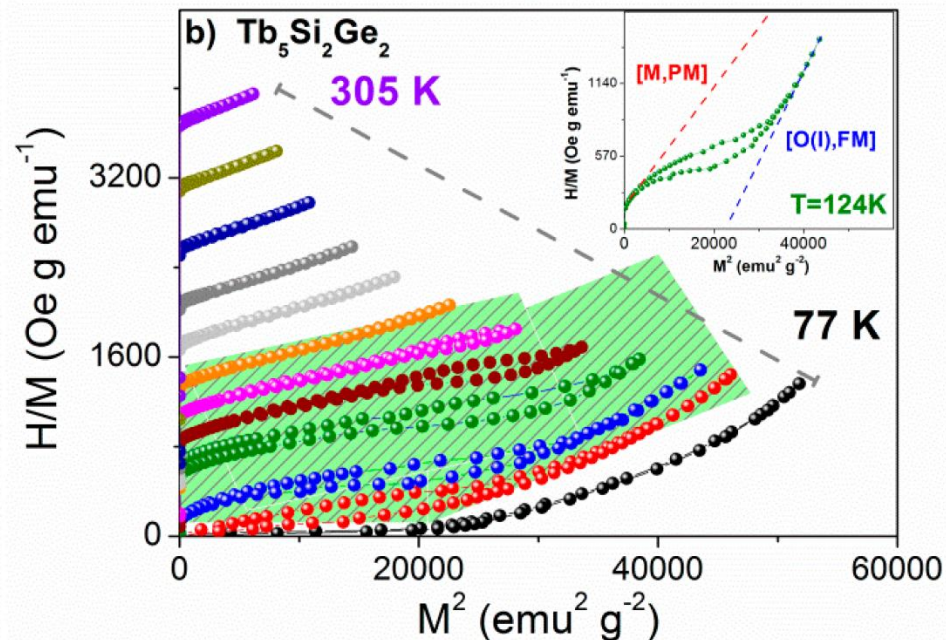
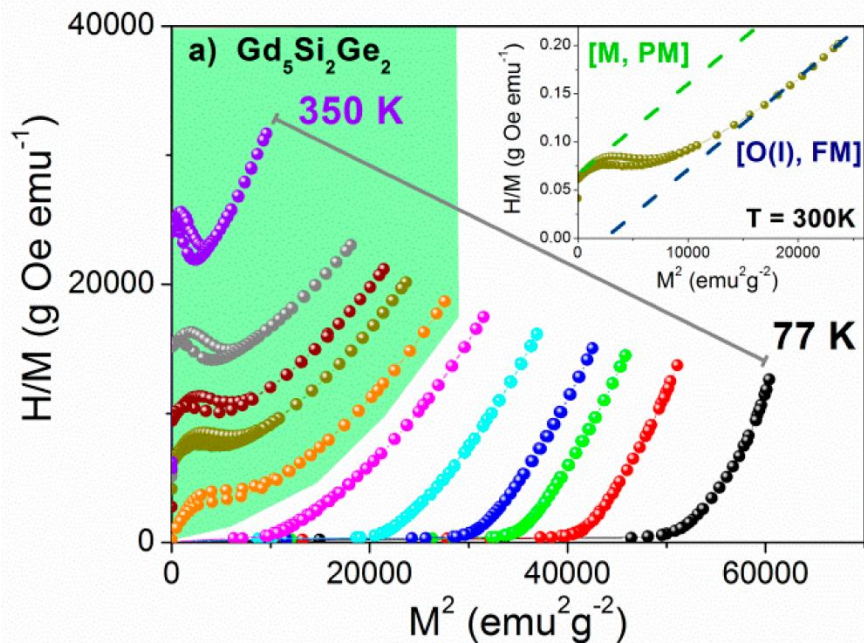
sdw – spin density wave; Néel – two collinear sublattices.



K. Balamurugan  
*et al.*

Phys. Rev. B 90,  
p. 104412  
(2014)

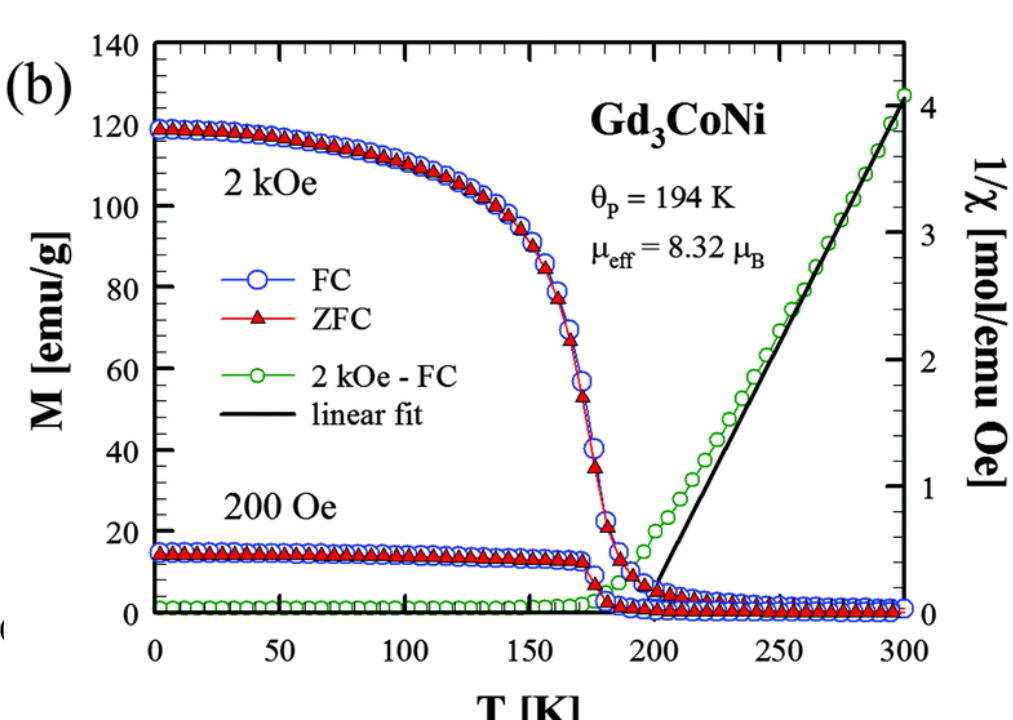
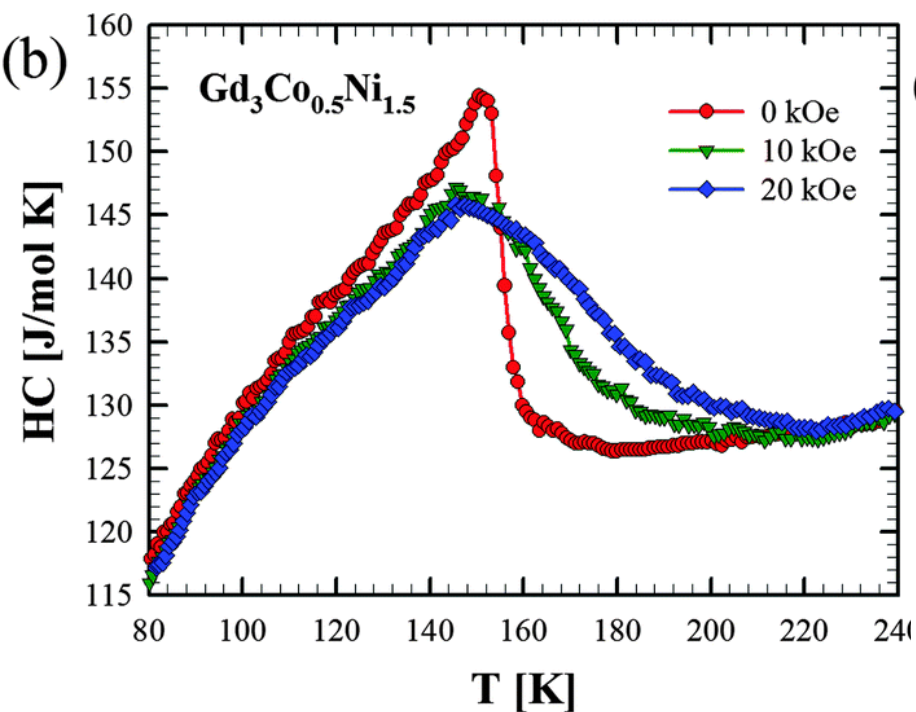
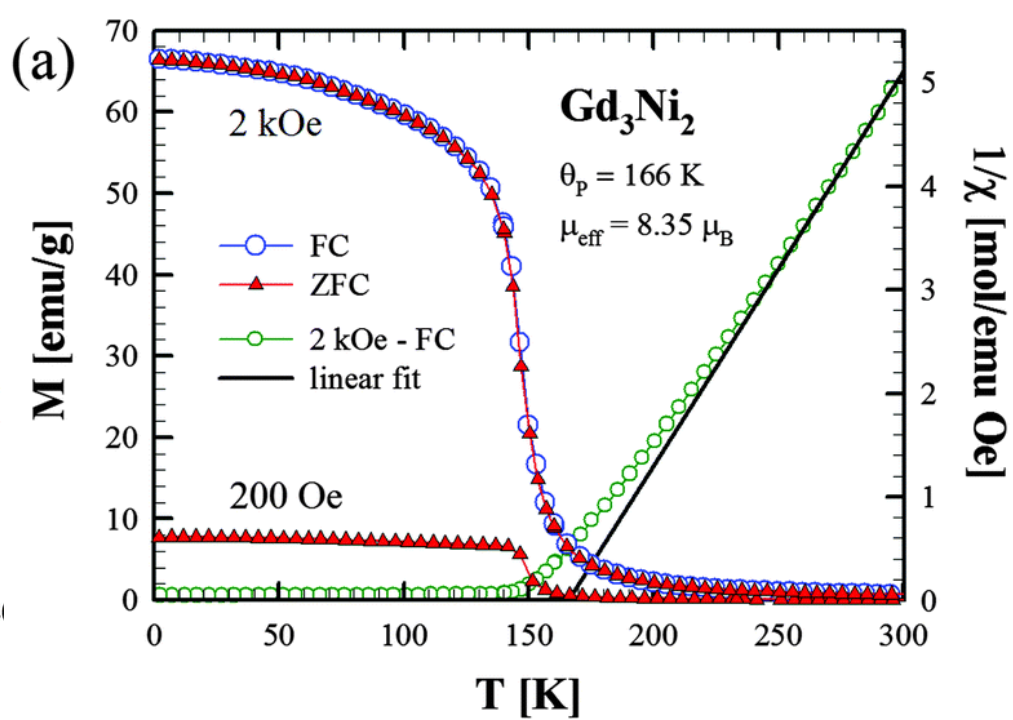
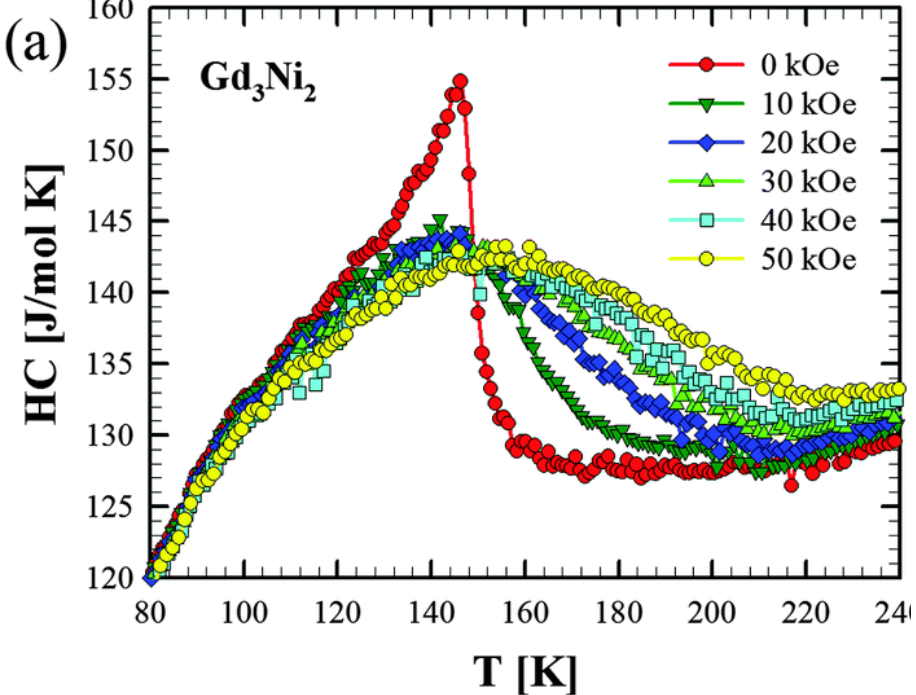




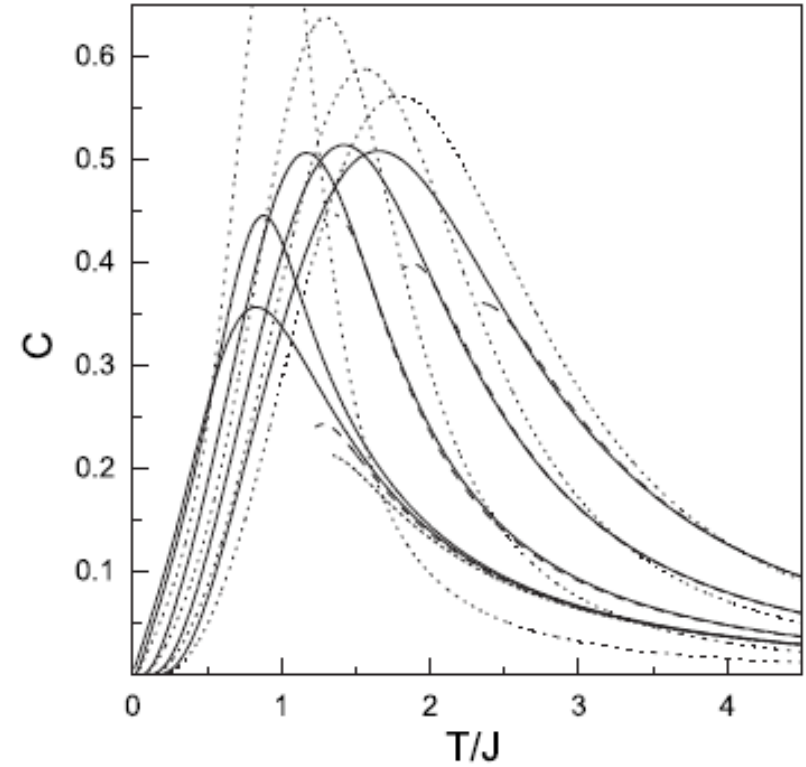
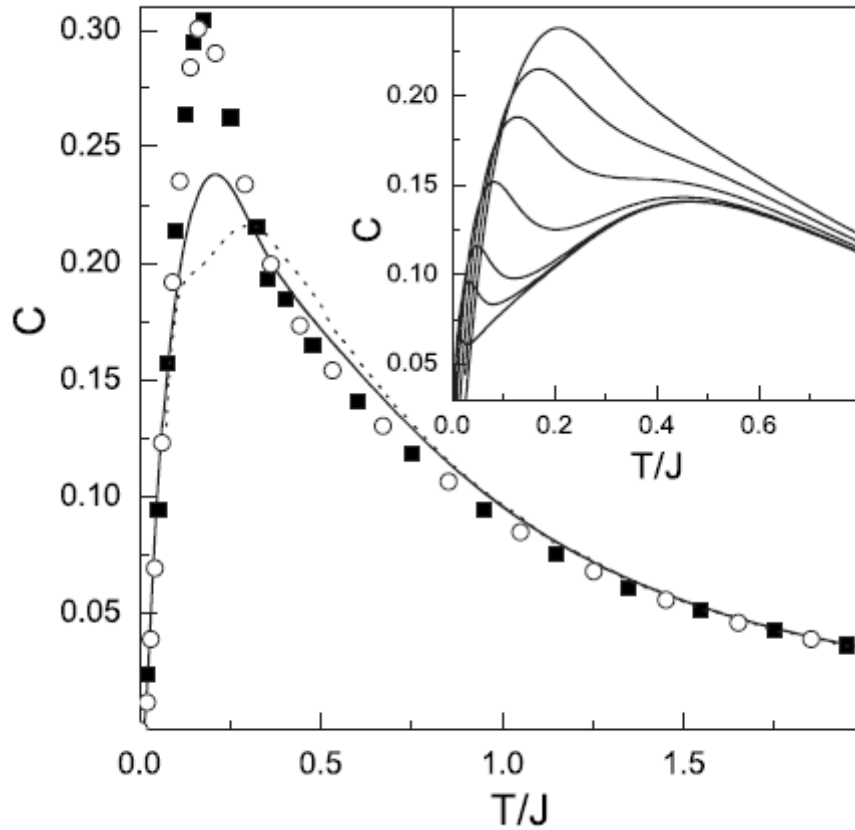
*Entropy* **2014**, 16(7), 3813-3831; doi:[10.3390/e16073813](https://doi.org/10.3390/e16073813)

*On the next slide:* DOI: [10.1039/C6TC01035K](https://doi.org/10.1039/C6TC01035K) (Paper) *J. Mater. Chem. C*, 2016, 4, 6078-6089



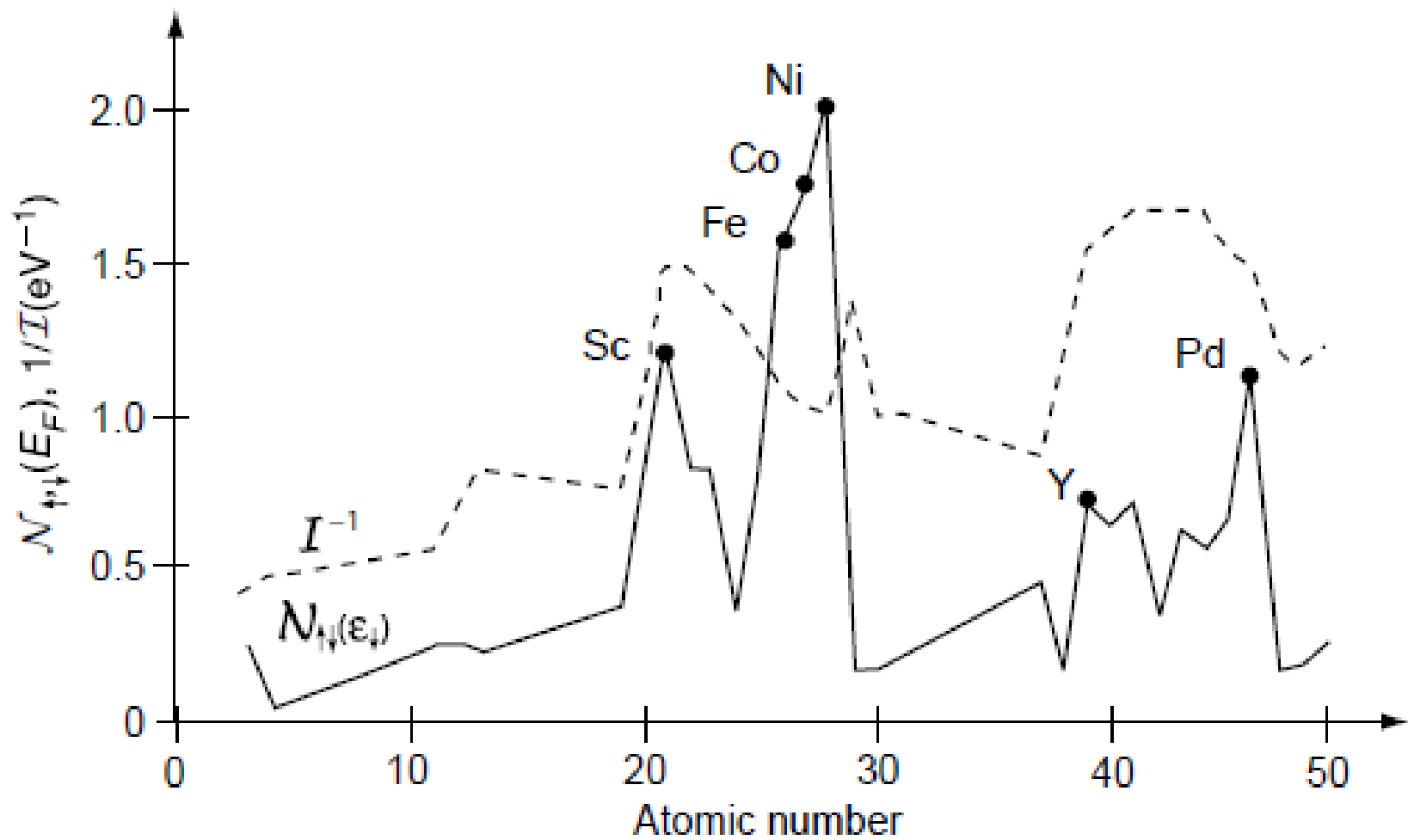


# Heisenberg ferromagnet on a chain



HFM on a triangular lattice

T.N. Antsygina, Phys. Rev. B 024407 (2008)



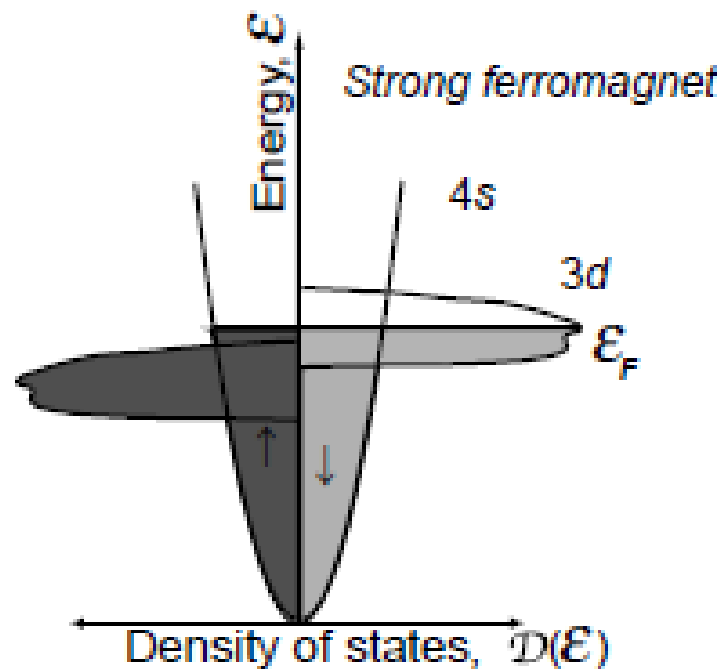
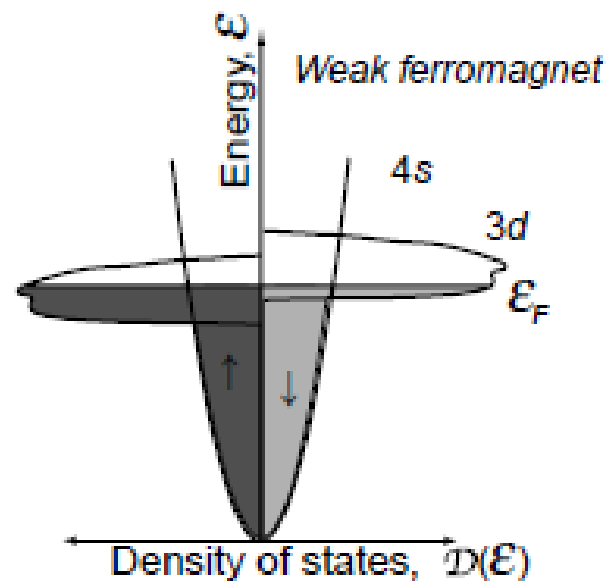
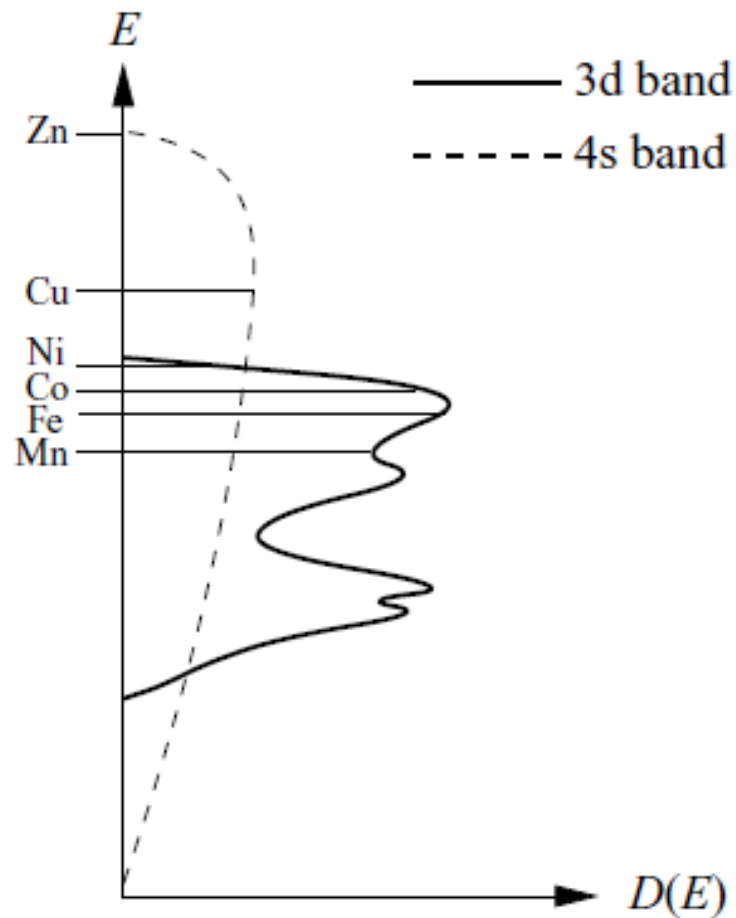
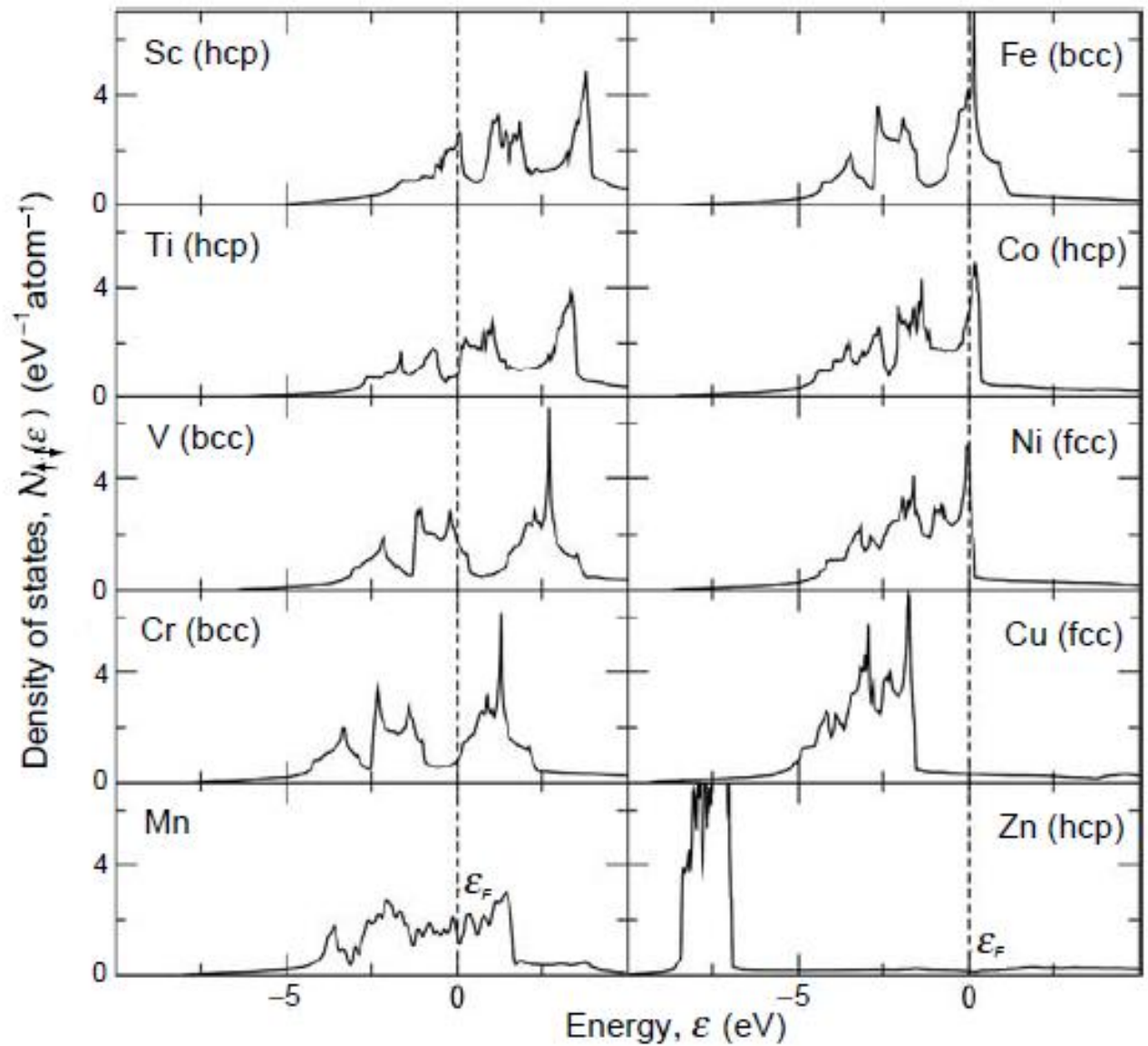
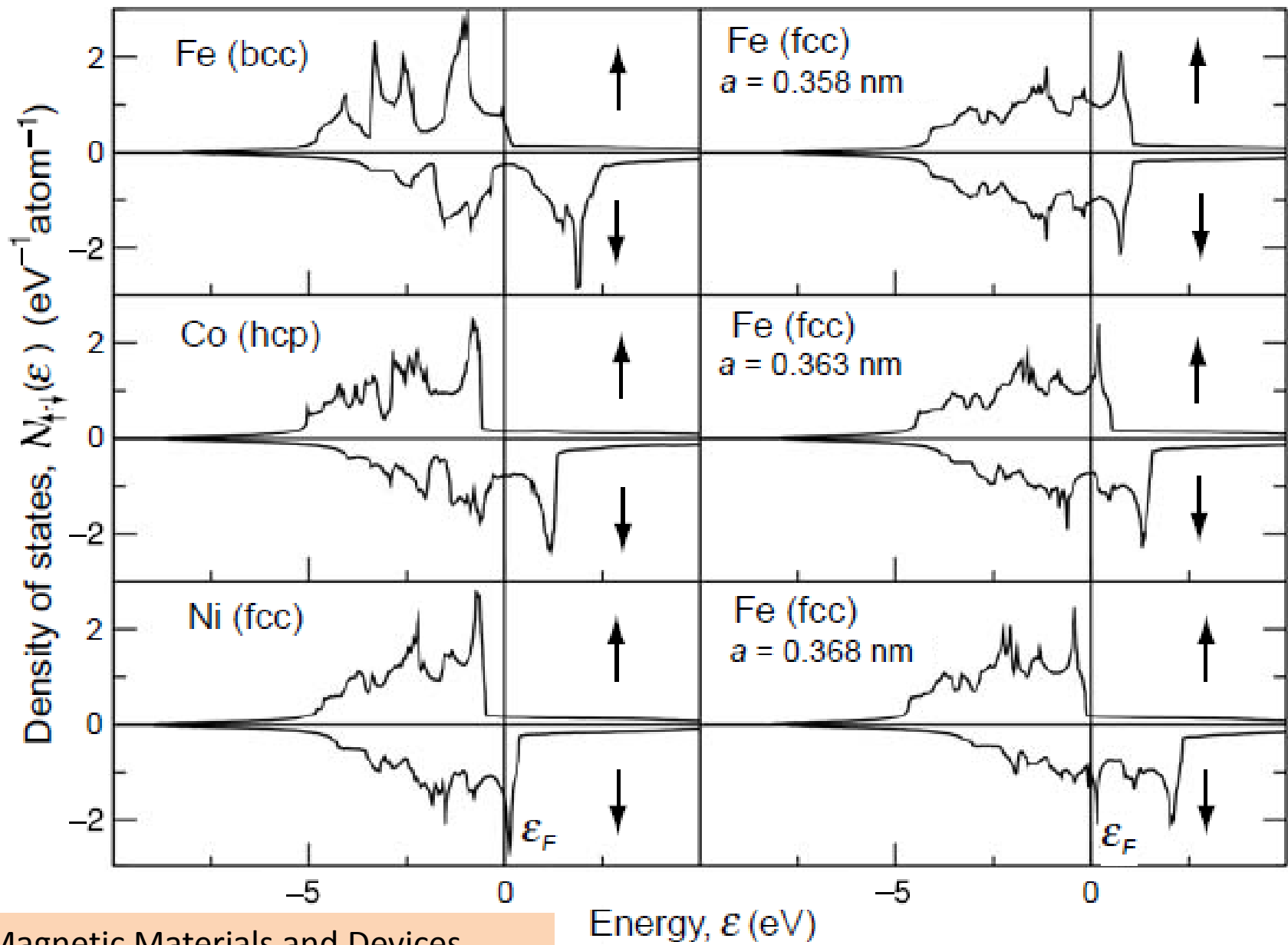




Figure 5.13

Densities of states for some metallic elements in the paramagnetic state. Calculations by courtesy of Chaitania Das.





**Table 5.5. Moments in metallic ferromagnets**

		$m_{eff}$	$m_0$	$T_c$
Ni	Strong ferromagnet	1.0	0.6	628
ZrZn <sub>2</sub>	Weak itinerant ferromagnet	1.8	0.2	25
CrO <sub>2</sub>	Half-metal	2.4	2.0	396