

- *Non-magnetic defects*

Imagine a nucleus coupled to 2 spins belonging to a KHAF.

Imagine that one of the two spins is replaced by a non-magnetic element.

- What would be the High T NMR shift ?
- The low-T NMR shift in case of orphan paramagnetic spins induced in the immediate vicinity of an impurity?
- Can you make a prediction for the specific heat at low T

- *Spin glass state in SCGO*

Shouldn't one observe a 1/3 tail in the polarization of SCGO appearing at T_g ? Why is it hard to observe?

- Understand experimental papers on the *kagomé* $S=1/2$ *Herbertsmithite*:

J.S. Helton et al., Phys. Rev. Lett. **98**, 107204 (2007)

P. Mendels et al., Phys. Rev. Lett. **98**, 077204 (2007)

T. Imai, cond-mat / 0703141

O. Ofer, cond-mat / 0610540

M. de Vries, cond-mat / 07...