

## Possible new temperature phase observed in $\text{GeCo}_2\text{O}_4$ spinel by high field ESR

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Magnetic ions  $\text{Co}^{2+}$  in spinel compound  $\text{GeCo}_2\text{O}_4$  from pyrochlore structure. As a result, three dimensional frustration is expected in  $\text{GeCo}_2\text{O}_4$ . Temperature dependence of specific heat and the magnetic susceptibility show anomalies at 20.6K due to AF transition. To investigate spin dynamics, high frequency ESR measurements of  $\text{GeCo}_2\text{O}_4$  for  $B//[100]$  is performed using the pulsed magnetic field. ESR spectra drastically change at  $T_N = 20.6\text{K}$  and 3K. It strongly suggests that new temperature phase exists below 3K. Possible new temperature phase will be discussed in connection with this resonance.

References J. C. Lashley *et al.*, Phys. Rev. **B**. 78 (2008) 104406