

## Magnetic behaviour of $Mn_xSi_{1-x}$ single crystals

Younghun Hwang<sup>\*1</sup> and Youngho Um<sup>1</sup>

Gwangsoo Jeon<sup>2</sup> and Jangwhan Kim<sup>2</sup>

<sup>1</sup> Department of Physics, University of Ulsan, San 29, Mugeo-Dong, Nam Gu, Ulsan, 680-749, Korea

<sup>2</sup> Department of Physics, National university of Pusan, San 30, Jangjun-Dong, Kumjung Gu, Busan, 607-735, Korea

\*Corresponding author: e-mail: yhum@mail.ulsan.ac.kr, Phone: +82 52 259 2327, Fax: +82 52 259 1693

### Abstract

$Mn_xSi_{1-x}$  single crystals were grown by the vertical Bridgmann method. The lattice constant was found to increase with manganese (Mn) concentration from X-ray diffraction measurement. The concentration of Mn was determined by EPMA (Electron Probe MicroAnalyzer). We have measured the EPR linewidth  $w$  and shift  $\Delta H$  at 9.75GHz and temperature below 77K. Magnetization measurements have been performed on a MnSi single crystal under a magnetic field of 2T in the temperature range of 4.2K ~ 300K.

We present the change of magnetic behaviour of  $Mn_xSi_{1-x}$  as a function of Mn composition analyzed from EPR (Electron Paramagnetic Resonance) and SQUID (Superconducting Quantum Interference Device) data in detail.

End of abstract.

### References

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