

## Magnetization measurements using Diamond Anville High Pressure Cell

K. Koyama<sup>1</sup>, T. Fujiwara<sup>1</sup>, M. Kano<sup>1</sup>, T. Nakano<sup>1</sup>, M. Hedo<sup>1</sup>, Y. Uwatoko<sup>1</sup>, S. Tozer<sup>2</sup>

1 - Institute for Solid State Physics, University of Tokyo, Kashiwa, Chiba 277-8581, Japan

2 -National High Magnetic Field Laboratory, Tallahassee, Florida 32310, U.S.A.

In recent years, physical properties of materials are investigated briskly under high pressure. They are challenging higher pressure and lower temperature measurements. Figure 1 shows the schematic drawing of Diamond Anville Cell (DAC) which we are developing at present. Originally, Stanley Tozer designed this cell for angular dependent magnetization measurements and investigations of transport properties of materials. To generate much higher pressure, we have been trying to improve it down to detail. Magnetization measurements of  $\text{Fe}_2\text{P}$  were tentatively performed under high pressures using this DAC. Subsequently, we succeeded to observe clear two anomalies which are corresponding to magnetic transitions from ferromagnetic to antiferromagnetic and from antiferromagnetic to paramagnetic states, respectively.

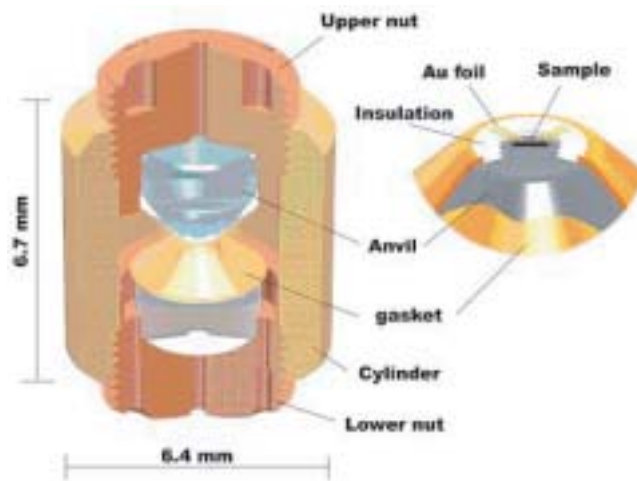


Figure 1: Schematic drawing of Diamond Anville Cell.