

Measurement of paramagnetic susceptibility using equilibrium of three force and permanent magnet 2nd report

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Magnetization measurement using a magnetic force by a magnetic field gradient has been performed for a long time by a measurement using a magnetic balance. In the existing magnetic balance method, the gravity and the magnetic force are balanced within the vertical line by hanging the sample in the magnetic field gradient in the vertical direction. In contrast, we report that in 2015 we can measure diamagnetic susceptibility and paramagnetic susceptibility with relatively high precision by orthogonalizing the magnetic field gradient force on the sample with gravity. We have tried to improve the accuracy of the paramagnetic susceptibility measurement by improving the shape of the magnetic circuit and the measuring method using this device. Report the results. We will report the result.

Keywords: Paramagnetic susceptibility, Measurement method, Permanent magnet, Equilibrium of three forces